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Subj: LOW ALTITUDE AIR DEFENSE (LAAD) TRAINING AND READINESS (T&R) MANUAL

Ref: (a) NAVMC 3500.14 Aviation Training and Readiness (T&R) Program Manual

Encl: (1) LAAD T&R Manual

1. Purpose. To revise standards and regulations regarding the training of LAAD personnel per the reference.

2. Information. This revision supersedes MCO P3500.57 and brings the LAAD T&R Manual into compliance with the reference. The 100 phase training for officers and enlisted has been revised to reflect the current training requirements. This revision provides a logical, stair-stepped approach to training with emphasis on the employment of surface-to-air weapon systems in defense of MAGTF assets, and the execution of the new LAAD Battalion secondary mission to provide a task organized, ground security force in defense of MAGTF air sites.

3. Recommendations. Recommended changes to this publication are invited, and may be submitted via the syllabus sponsor and the appropriate chain of command to: Commanding General, Training and Education Command, Aviation Training Branch using standard Naval correspondence or the Defense Message System plain language address: CG TECOM QUANTICO VA ATB.

4. Reserve Applicability. This Manual is applicable to the Marine Corps Total Force.

5. Certification. Reviewed and approved this date.

M. G. SEMPLE
By direction

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CHAPTER 1

LOW ALTITUDE AIR DEFENSE
T&R UNIT TRAINING REQUIREMENTS

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CHAPTER 1

LOW ALTITUDE AIR DEFENSE (LAAD) T&R UNIT TRAINING REQUIREMENTS

100. TRAINING AND READINESS REQUIREMENTS. Marine Aviation plays a crucial role in the MAGTF's ability to conduct Maneuver Warfare. The ultimate goal of Marine Aviation is to attain the highest possible combat readiness to support Expeditionary Maneuver Warfare while preserving and conserving our Marines and equipment. Embedded within our combat readiness is the ability to rapidly, effectively, and efficiently deploy on short notice and to quickly and effectively plan for crises and/or contingency operations thereby ensuring Marine Aviation remains ready for combat when and where the need arises. The Aviation T&R Program represents the collaborative effort of Marine Aviation Subject Matter Experts who designed training standards to maximize combat capabilities. These standards, intrinsic in the core competency readiness metric, describe and define unit capabilities and requirements necessary to maintain like-unit proficiency in core skills and combat leadership. Training events are based on specific requirements and performance standards that ensure crews maintain a common base of training and depth of combat capabilities. The T&R comprises a building block approach to ensure trained crews remain ready, relevant, and fully capable of supporting the MAGTF commander. It is incumbent upon, and expected of, the commander to balance any increase in the depth of core capabilities against the long-term health and readiness of the unit while staying within resource constraints.

101. LAAD MISSION. Support the MAGTF commander by providing close in, low altitude, surface-to-air weapons fires in defense of MAGTF assets by defending forward combat areas, maneuver forces, vital areas, installations and/or units engaged in special/independent operations; to provide a task organized, ground security force in defense of MAGTF air sites when not engaged in air defense operations.

102. TABLE OF ORGANIZATION (T/O). Refer to Table of Organization 8691 (LAAD Bn Hqtrs), 8692 (H&S Btry 2nd and 3rd LAAD BNs), 8693 (H&S Detachment 2nd & 3rd LAAD BNs), 8694 (Alpha and Bravo Btry 2nd & 3rd LAAD BNs). All T/Os are managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength. Information below depicts (community) T/O information as of the date of this directive.

1. LAAD Battalion. A core-capable LAAD battalion is able to provide low-altitude surface-to-air weapons fires in support of designated MAGTF air defense priorities relative to scope and size of each site or asset (FARP, BDZ, MAGTF maneuver elements). The LAAD battalion provides a primary capability as a highly mobile, man-portable, surface-to-air weapons component of the MAGTF with the ability to rapidly deploy in the assault echelon of an expeditionary operation. A secondary capability provides ground security forces capable of vehicle or dismounted ground-to-ground direct fires in defense of MAGTF air sites when not engaged in air defense operations. A LAAD battalion employs as a battalion or separately as two subordinate batteries consisting of two platoons each.

LAAD Bn T/O

LAAD Battalion
Officers - 10 (7204)
Enlisted - 170 (7212)

CMMR
(Minimum Manning for LAAD Units)

LAAD Battalion
Officers - 6 (7204)
Enlisted - 105 (7212)

(6) LAAD Officer
(3) Operations Chief
(4) Platoon Sergeant
(8) Section Leader
(45) Gunner
(45) Assistant Gunner

Firing Battery
Officers - 3 (7204)
Enlisted - 51 (7212)

(3) LAAD Officer
(1) Operations Chief
(2) Platoon Sergeant
(4) Section Leader
(22) Gunner
(22) Assistant Gunner

Firing Platoon
Officers - 1 (7204)
Enlisted - 25 (7212)

(1) LAAD Officer
(1) Platoon Sergeant
(2) Section Leader
(11) Gunner
(11) Assistant Gunner

Firing Section
Officers - 0 (7204)
Enlisted - 11 (7212)

(1) Section Leader
(5) Gunner
(5) Assistant Gunner

Notes:
(1) Above crew compositions reflect minimum manning.
(2) Assigned support personnel are not listed.
(3) Actual manning is based on mission and duration.
(4) Long term sustainability is based on logistical support being provided.

LAAD Core METL/Core Skills Matrix/Output Standards													
Mission Essential Task List		METL/Core Skills Matrix											Output Standard
		Core Skills											
MCT	MET	ASCM	C2	CM	GA	GG	GTR	MAN	SEC	TEAD	TEGD	VACR	
6.1.1.10.3	Provide Base/Airfield Security Operations		X	X		X	X	X	X		X		**MEU/MEB** (1) **MEU** air defense priority is provided with low-altitude surface-to-air weapons fires support, and (4) **MEB** air defense priorities are provided with low-altitude surface-to-air weapons fires support; or **MEF** (9) **MEF** air defense priorities are provided with low-altitude surface-to-air weapons fires support. Y/N: Platoon, Battery and Battalion HQ able to command and control forces assigned to provide ground security.
6.1.1.8	Conduct Active Air Defense	X	X		X			X		X		X	**MEU:** (1) Air site is provided for ground security **MEB:** (1) Air facility is provided ground security, or (2) Air sites are provided ground security Y/N: Platoon, Btry, and Bn HQ able to command and control forces assigned to provide ground security. **MEF:** (1) Main air base is provided ground security, or (2) Air facilities are provided ground security Y/N: Platoon, Btry, and Bn HQ able to command and control forces assigned to provide ground security

PLATOON CSP (CMMR)						
CORE SKILL	7204		7212			
	Plt Cdr	Btry Cdr	Asst Gunner	Gunner	Sect Ldr	Ops Chief
ASCM	1	0	0	11	2	0
C2	1	0	0	11	2	0
CM	1	0	0	5	2	0
GA	0	0	11	11	2	0
GG	0	0	11	11	2	0
GTR	1	0	11	11	2	0
MAN	1	0	11	11	2	0
SEC	1	0	11	11	2	0
TEAD	1	0	0	0	2	0
TEGD	1	0	0	0	2	0
VACR	0	0	11	11	2	0

FIRING SECTION CSP (CMMR)						
CORE SKILL	7204		7212			
	Plt Cdr	Btry Cdr	Asst Gunner	Gunner	Sect Ldr	Ops Chief
ASCM	0	0	0	5	1	0
C2	0	0	0	5	1	0
CM	0	0	0	2	1	0
GA	0	0	5	5	1	0
GG	0	0	5	5	1	0
GTR	0	0	5	5	1	0
MAN	0	0	5	5	1	0
SEC	0	0	5	5	1	0
TEAD	0	0	0	0	1	0
TEGD	0	0	0	0	1	0
VACR	0	0	5	5	1	0

b. Combat Leadership Requirements. As a minimum, to be considered core competent a unit must have personnel with the leadership designations as listed below.

LEADERSHIP DESIGNATIONS (CMMR)				
DESIGNATIONS	BATTALION	BATTERY	PLATOON	SECTION
Section Leader	8	4	2	1
Platoon Sergeant	4	2	1	-
Platoon Commander	4	2	1	-
Operations Chief	3	1	-	-
Battery Commander	2	1	-	-

CHAPTER 2

LOW ALTITUDE AIR DEFENSE (LAAD) OFFICER (MOS 7204)

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CHAPTER 2

LOW ALTITUDE AIR DEFENSE (LAAD) OFFICER (MOS 7204)

200. INDIVIDUAL TRAINING AND READINESS REQUIREMENTS. This T&R syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core Skills. The goal of this chapter is to develop individual and unit war fighting capabilities.

201. TRAINING PROGRESSION MODEL. This model represents the recommended training progression for the average LAAD officer in terms of core skill, certification, and designation attainment (see fig. 2-1). Units should use the model as a point of departure to generate individual training plans.

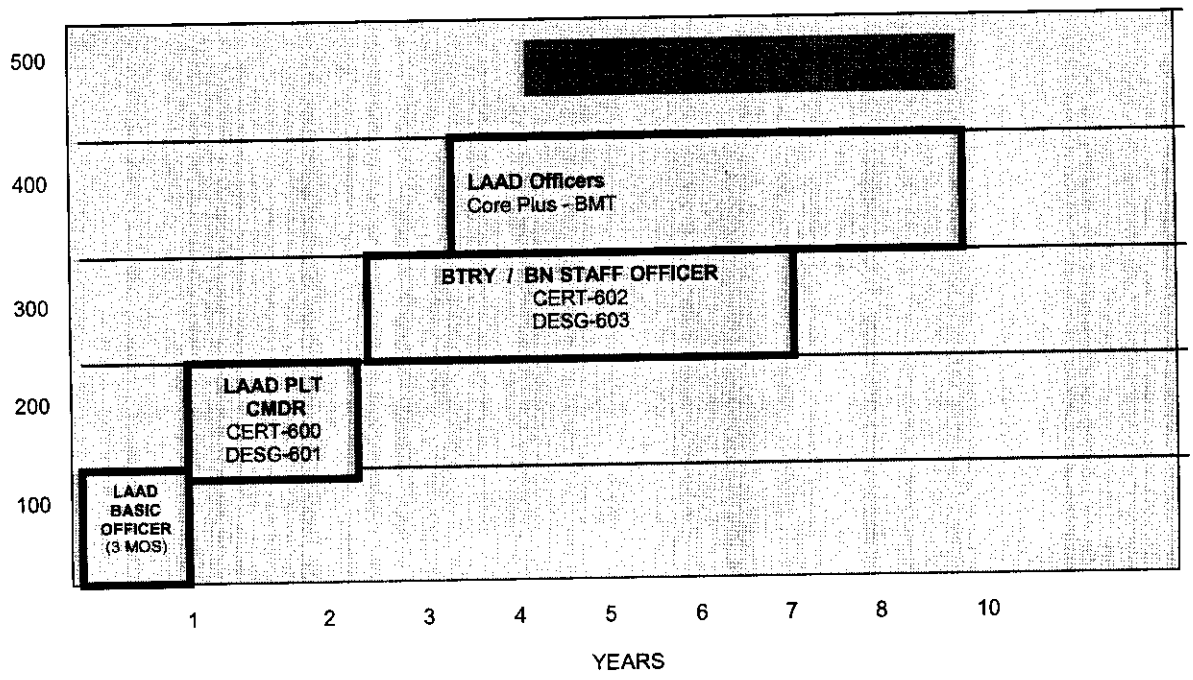

Figure 2-1.--LAAD Officer Progression Model.

INDIVIDUAL CSP ATTAIN TABLE								
	ASCM	C2	CM	MAN	SEC	TEAD	TEGD	GG
LAAD PLT CDR (7204)	CTM210R	COM200R COM201R COM202R COM203R COM204R COM205R COM206R BMT215R BMT220R BMT221R	CTM210R	NAV211R	BMT232R BMT237R	BMT225R BMT227R BMT229R BMT231R	BMT232R BMT237R	WPN251R WPN256R WPN259R GUN271R GUN274R GUN275R
BTRY CDR/ BN STAFF OFFICER (7204)		CMT300R BMT302R BMT303R BMT305R BMT310R BMT313R BMT314R BMT315R			BMT311R	BMT302R BMT303R BMT305R BMT314R	BMT302R BMT303R BMT314R	

3. Events Required to Attain Individual Proficiency in Core Plus Skills. Proficiency in core plus skills is not required to obtain unit CSP. Training to core plus skills is at the discretion of the unit commanding officer. To initially attain proficiency in a core plus skill, an individual must simultaneously have a proficient status in all of the T&R events listed below for that core plus skill.

INDIVIDUAL CORE PLUS SKILLS ATTAIN TABLE			
	BMT		
LAAD Officer (7204)	BMT-401R BMT-402R	BMT-403R BMT-404R	BMT-405R BMT-406R

4. Events Required to Maintain Individual Proficiency in Core Plus Skills. The LAAD officer syllabus does not have a requirement to maintain Core Plus events.

INDIVIDUAL CORE PLUS SKILLS MAINTAIN TABLE			
	BMT		
LAAD Officer (7204)	BMT-401R BMT-402R	BMT-403R BMT-404R	BMT-405R BMT-406R

204. PROGRAMS OF INSTRUCTION (POI)

1. Basic POI

WEEKS	COURSE / PHASE	ACTIVITY
01 - 06	Core Skill Introduction Training	MCD, USAADSCH
07 - 59	Core Skill Basic Training	LAAD Unit
60 - 192	Core Skill Advanced Training	LAAD Unit
193 - 312	Core Plus Training	LAAD Unit

2. Refresher POI

WEEKS	COURSE / PHASE	ACTIVITY
12	Core Skill Basic Training	LAAD Unit
26	Core Skill Advanced Training	LAAD Unit
26	Core Skill Plus Training	LAAD Unit

205. ACADEMIC TRAINING

1. Academic training shall be conducted for each phase/stage of the syllabus. Where indicated, standardized academic training materials exist and may be obtained from the sponsoring activity.

2. External academic courses of instruction required and available to complete the syllabus are listed below:

COURSE	ACTIVITY
LAAD Enhancement Training Instructor (LETI)	MAWTS-1, Yuma, AZ
Weapons and Tactics Instructor Course	MAWTS-1, Yuma, AZ
Anti-Terrorism/Force Protection Level II course	Marine Corps Detachment, Fort Leonard Wood, MO
MAGTF Integrated Systems Training Center (MISTC) Blue Force Tracker class	I MEF Camp Pendleton, CA, or II MEF Camp Lejeune, NC

3. References. References provided in appendix C should be utilized to ensure safe and standardized training procedures, performance standards, grading criteria and equipment operations.

206. T&R SYLLABUS NOTES

1. The purpose of this section is to provide a standardized training program for all LAAD officers. The overall goal is to develop unit war fighting capabilities and not to measure the proficiency of individuals. Syllabi are based on specific performance standards designed to ensure proficiency in core competencies. An effective T&R program is the first step in providing the MAGTF commander with an Aviation Combat Element (ACE) capable of accomplishing any and all of its stated missions. The T&R program provides the fundamental tools for commanders to build and maintain unit combat proficiency and readiness. Using these tools, training managers can construct and execute an effective training plan that supports unit METs.

2. The majority of this LAAD syllabus is academic training and requires in-depth integration within the MACCS. Likewise, development of MAGTF training involving extensive integration with the Ground Combat Element (GCE) is mandatory in the development of a LAAD officer.

Performance Standard. The student is required to pass an exam with a minimum of 80% for all items in Group A, and a minimum of 100% for all items in Group B.

Reference. FM 44-18-1A, Basic I&KP instructor publication, and RMP I&KP instructor publication.

LDBO-102 2.0 B (1) FHT S

Goal. Inspect a Stinger missile.

Requirement. In an academic setting, without the aid of reference, the student will conduct the thirteen critical checks to inspect a training Stinger missile. The following equipment will be provided: One Field Handling Trainer (FHT), training grip-stock, and a dummy BCU (not inserted).

(1) Blowout disk.
(2) Squib leads.
(3) Launch tube.
(4) Humidity indicator.
(5) IR window.
(6) Range ring.
(7) Rear sight reticle.
(8) Acquisition indicators (state safety precaution before continuing)
(9) Safety and actuator switch.
(10) Un-cage bar.
(11) Firing trigger.
(12) Latch mechanism.
(13) Battery Coolant Unit (BCU).
    (a) BCU well on grip-stock.
    (b) BCU heat sensitive indicator.
    (c) BCU burst disc diaphragm.
    (d) BCU needle.
    (e) BCU contact rings.

Performance Standard. Without error state or list each of the events listed above.

Reference. FM 44-18-1 and TM 9-1425-429-12.

LDBO-103 2.0 B (2) FHT S

Goal. Convert a Stinger missile round to a ready round.

Requirement. During a practical application exercise and within three minutes, the student, given a FHT Stinger missile round, will convert a Stinger missile round to a ready round.

(1) Evaluator will provide one FHT with grip-stock, dummy BCU, and IFF interrogator, and one FHT missile round with second dummy BCU, to simulate a ready round and missile round.
(2) The student begins the task with the presumed expended ready round on his shoulder and the antenna up. The missile round is located nearby with the additional dummy BCU not inserted.

(f) Notifies EOD of the situation immediately and of the initial trigger pull to identify a 30 minute lapse before EOD personnel may move the misfired missile, if required.

(3) DUD (Eject Only):
(a) Marks the location of the dud so that it can be observed from a safe location.
(b) Evacuates personnel to a distance no less than 1200 feet. Establishes a guard and maintains observation of the missile until destroyed.
(c) Notifies EOD immediately of the situation and of the initial trigger pull to identify a 30 minute lapse before EOD personnel may move the eject only missile, if required. Non-EOD personnel may approach the missile after a 60 minute time lapse.

Performance Standard. Without error state or list each of the events listed above.

Reference. FM 44-18-1, TM 9-1425-429-12, and MCRP 3-25.10.

LDBO-105 4.0 B (1) COMPLETE IFF SYSTEM L

Goal. Understand the LAAD IFF operating system and subsystems.

Requirement. The student will understand the IFF system and subsystem utilized in the LAAD BN. They will state or identify:

(1) The purpose of the AN/GSX-1.
(2) The purpose of the Data Transfer Device (DTD).
(3) The purpose of the AN/PPX-3A/B and the difference between the two variants.
(4) The purpose of the AN/KIR-1C.
(5) How to zeroize the Data Transfer Device (DTD), AN/PPX-3A/B, and the AN/KIR-1C.
(6) The IFF mode responses and how long codes may be utilized before superseding.
(7) The AN/PPX-3A/B battery life.
(8) The software/tape used for IFF code.
(9) The range of the IFF when utilized with the Stinger missile obstructed and unobstructed.

Performance Standard. Without error state or list each of the events listed above.

Reference. MCRP 3-25.10.

LDBO-106 1.0 B (1) SNS L

Goal. Operate the Stinger Night Sight (SNS).

Requirement. The student, during a practical application exercise, will be given a SNS with all SL-3 components and will mount, operate and dismount the equipment on a Tracking Head Trainer (THT).

(1) Install battery/power source.
(2) Mount the SNS on the THT.

LDBO-111 1.0 B (1) SINCGARS L

Goal. Troubleshoot VHF Communications.

Requirement. During a practical application exercise, the student will perform operator's troubleshooting on SINCGARS, given a SINCGARS operating on a tactical or training net. The student will:

(1) Check power source.
(2) Check man-pack function button configuration.
(3) Check vehicular function button configuration.
(4) Run RT self-tests (BIT).
(5) Check signal display.
(6) Check side-tone.
(7) Check surrounding environment for obstacles/interference.
(8) Check distance between each transmitting/receiving station.
(9) Check crypto fill.

Performance Standard. The standard is met when the student correctly identifies the fault and establishes communication with a designated station.

Prerequisite. LDBO-110.

Reference. FM 24-18, TM 11-5820-890-10-1,TM 11-5820-890-10-2, TM 11-5820-890-10-3,and TM 11-5820-890-10-4.

External Syllabus Support. ACEOI or training frequencies and/or a frequency hopping load set.

LDBO-112 8.0 B (1) MRC-148/ (1) PRC-150 L/S

Goal. Operate HF Communications.

Requirement. During a practical application exercise, the student, given a communication requirement, will prepare and operate HF communications. The following equipment is provided: a data fill/transfer device, a distant communication station already established, and a HF Communication set SL-3 complete. The student will:

(1) State operational characteristics and features of a radio set.
(2) State the controls and indicators of the radio set.
(3) Identify and perform self tests and measurements.
(4) Set up, program, and operate the radio set in both secure and unsecure modes.
    (a) Install batteries.
    (b) Install antenna.
    (c) Connect handset.
    (d) Load a crypto fill.
    (e) Load frequencies.
    (f) Establish communication with distant station in unsecure mode.
    (g) Establish communication with distant station in secure mode.
    (h) Zeroize crypto fill

Reference. MCRP 3-25.10, FM-25.26, and EKMS-1.

LDBO-116 3.5 B ACADEMICS L

Goal. Understand proper handling of CMS materials.

Requirement. In an academic environment and without the aid of reference, the student will understand how to properly store, use, and destroy CMS materials:

(1) Identify CMS software and corresponding equipment.
(2) State proper handling considerations for CMS material in a tactical environment.
(3) State proper transportation considerations for CMS materials in a tactical and non-tactical environment.
(4) State destruction procedures IAW the reference.
(5) Define "Two Person Integrity (TPI)."

Performance Standard. Without error explain how to properly store use and destroy CMS materials.

Reference. EKMS 1.

LDBO-117 1.0 B (1) IFF SYSTEM, (1) GPS, (1) SINCGARS L

Goal. Understand the emergency destruction procedures for the Stinger missile and all ancillary LAAD equipment.

Requirement. In an academic setting, the student will state the desired methods for destroying the Stinger missile and all ancillary LAAD equipment. The student will state or identify:

(1) Appropriate safety precautions.
(2) Destruction methods of the Stinger missile.
    (a) Destroy the missile(s) by firing it in the direction of the enemy (preferred method). Select a self-destruction point which will cause the greatest destruction to the enemy and will not hinder or endanger friendly forces ensuring all parts essential to the weapon round operation are destroyed beyond operation.
    (b) Smash seeker section of the missile(s) and destroy the weapon(s) by burning ensure all parts essential to the weapon-round operation are destroyed beyond operation using available equipment as prescribed in the references.
    (c) Smash seeker section of the missile(s) and destroy the weapon(s) with demolition by appropriate trained personnel (i.e. EOD, Combat Engineers, etc) ensure all parts essential to the weapon-round operation are destroyed beyond operation using available equipment as prescribed in the references.
(3) Zeroize crypto fills:
    (a) IFF.
    (b) VHF Communications equipment.
    (c) HF Communications equipment.
    (d) GPS.
(4) Destroy ancillary equipment by burning, demolition, or small arms fire. Ancillary equipment includes:

(8) Determine distance and elevation on a map from between two points.
(9) Select a navigation route between to points on a map.
(10) Determine distance and pace count between two points on a map.
(11) Identify terrain features and colors on a map.
(12) Describe how to set an azimuth on a lensatic compass for night navigation.

Performance Standard. The student will complete a locally produced practical application exercise that contains questions related to items 1-12 in the requirement.

Reference. FM 3-25.26.

LDBO-126 12.0 B (1) GPS UNIT L

Goal. Operate a military Global Positioning System (GPS).

Requirement. During a practical application exercise, the student, given a military GPS, a map, and a tactical scenario, will successfully navigate under real world conditions.

(1) Initialize the military GPS.
(2) View current position display.
(3) Mark current position as a waypoint.
(4) Enter additional waypoints.
(5) Perform navigation operations.
(6) State how to zeroize the GPS.
(7) Locate the map datum horizontal and spheroid

Performance Standard. Utilizing a military GPS, the student will correctly input required data and navigate to/from five designated distant navigational points (the start/end point is one of the five points).

Prerequisite. LDBO-125.

Reference. TM 09880C-OR.

External Syllabus Support. Approved local training area.

LDBO-127 8.0 B (1) HMMWV (D) L

Goal. Perform mounted land navigation.

Requirement. The student will perform mounted land navigation during a practical application exercise with the aid of a lensatic compass, 1:50,000 military grid map, a protractor, a GPS, a licensed HMMMW driver, and a HMMWV variant. The student will:

(1) State the kilometers/miles conversion formula.
(3) Orient a map.
(4) Navigate HMMWV to and locate three military grids without GPS.
(5) Navigate a HMMWV to and locate three military grids with a GPS.
(6) Navigate the HMMWV back to the start point.

Requirement. The student will perform manual cross-tell procedures when given a blank map and a Cartesian Coordinate Reference Point (CCRP). The student will properly create the Cartesian Coordinate Reference System (CCRS) on the map, and convert cueing information to a map location. The student will:

(1) State how to properly read the CCRS.
(2) Plot five received early warning cues.
(3) State the purpose of the CCRP.

Performance Standard. The student will create a CCRS on a map and convert a minimum of 4 out of 5 early warning cues.

Reference. MCRP 3-25.10.

LDBO-134 1.0 B ACADEMICS L

Goal. Understand the structure and responsibilities of the Low Altitude Air Defense (LAAD) BN.

Requirement. In an academic setting, the student will understand the LAAD Battalion structure and responsibilities of support sections within the Headquarters and Services Battery.

(1) State the organizational structure of the LAAD BN, to include number of batteries, platoons, sections, and teams per unit.
(2) State the smallest tactical unit within a LAAD BN/BTRY.
(3) State the smallest tactical element in a LAAD BN/BTRY.
(4) State the geographical location of all LAAD units.
(5) State primary and secondary missions of LAAD BN.
(6) State the doctrinal radio nets organic to the LAAD BN.
(7) State the staff sections of the LAAD BN and their functions.
(8) State the levels of support the LAAD BN/BTRY provides to MAGTF.

Performance Standard. Without error, state each of the responsibilities of the Low Altitude Air Defense (LAAD) BN as listed above.

Reference. MCRP 3-25.10.

LDBO-135 1.0 B ACADEMICS L

Goal. Understand Marine Air Command and Control System (MACCS).

Requirement. Given the references the student will demonstrate an understanding of MACCS units, systems, capabilities and limitations.

Performance Standard. Without error state or list MACCS units, systems, capabilities and their limitations.

Reference. MCWP 3-25.3.

LDBO-136 1.0 B ACADEMICS L

Goal. Understand the six functions of Marine Aviation.

LDBO-139 8.0 B ACADEMICS L

Goal. Understand LAAD employment in a force protection role.

Requirement. In an academic setting, without the aid of reference, the student will understand LAAD employment in a force protection role. The student will be able to:

(1) Discuss Convoy Security Fundamentals:
  (a) Command/support relationships.
  (b) Command and control of the convoy.
  (c) Route.
  (d) Speed/rate of march.
  (e) Sectors of fire/ Positions of gun trucks.
  (f) Actions on enemy contact.
  (g) Positive ID criteria.
  (h) Rules of engagement.
  (i) Intelligence Surveillance Reconnaissance plan/route Reconnaissance plan.
  (j) Air escort planning and coordination.
  (k) Plan for control of Close Air Support.
  (l) Communications planning.
  (m) Bump plan for personnel and vehicles.
  (n) Recovery plan for vehicles.
  (o) CASEVAC procedures.
  (p) Quick Reaction Force procedures.
  (q) Logistics planning.
  (r) Night operations.
(2) Discuss Site Security Fundamentals:
  (a) Command/support relationships.
  (b) Command and control/Base Defense Operations Center.
  (c) Entry control points for military and civilian.
  (d) Entry and exit friendly lines procedures.
  (e) Vehicle and personnel search procedures.
  (f) Sectors of fire/ Positions of machine guns/dead space.
  (g) Actions on enemy contact.
  (h) Positive ID criteria.
  (i) Rules of engagement.
  (j) Intelligence Surveillance Reconnaissance plan/sensor plan.
  (k) Engineer/obstacle plan.
  (l) Fire Support Plan.
  (m) Less than lethal plan/Riot control.
  (n) Personnel requirements and accountability.
  (o) Communications planning.
  (p) Attachments (translator, military working dog teams, EOD, etc…).
  (q) Badge procedures.
  (r) Escort procedures for Third Country Nationals/visitors.
  (s) CASEVAC procedures.
  (t) Quick Reaction Force procedures.
  (u) Logistics planning.
  (v) Night operations.
(3) Discuss Security Patrol Fundamentals:
  (a) Command/support relationships.
  (b) Command and control.
  (c) Route/ Checkpoints.

(21) Forward Arming and Refueling Point operations (where applicable).

Performance Standard. The student will issue a 5-paragraph order with associated maps, sketches, and overlays. The student will be prepared to discuss any aspect of his 5-paragraph order.

Prerequisite. LDBO-130 and LDBO-137.

Reference. MCWP 3-25.10, MCWP 3-25.11, MCRP 3-40.3C, ACP-125, FM 24-18, FMFM 3-1, and MCO 3500.27.

LDBO-141 16.0 B ACADEMICS L

Goal. Conduct force protection employment planning for a LAAD platoon.

Requirement. In an academic setting, given a scenario, conduct force protection employment planning for a LAAD platoon. The student will receive a 5-paragraph order from higher headquarters and develop a 5-paragraph order focused on site security. The student order will include:

(1) IPB (enemy situation, terrorist threat, indirect fire threat, IED and Vehicle Borne IED threat, sniper threat, enemy intelligence and collections, etc…).
(2) LAAD force protection capabilities, limitations, and requirements.
(3) Command/support relationships.
(4) Command and control/Base Defense Operations Center.
(5) Entry control points for military and civilian.
(6) Entry and exit friendly lines procedures.
(7) Vehicle and personnel search procedures.
(8) Sectors of fire.
(9) Positions of machine guns/dead space.
(10) Actions on enemy contact.
(11) Positive ID criteria.
(12) Rules of engagement.
(13) Intelligence Surveillance Reconnaissance plan/sensor plan.
(14) Engineer/obstacle plan.
(15) Fire Support Plan.
(16) Less than lethal plan/Riot control.
(17) Personnel requirements and accountability.
(18) Communications planning.
(19) Attachments (translator, military working dog teams, EOD, etc…).
(20) Badge procedures.
(21) Escort procedures for Third Country Nationals/visitors.
(22) CASEVAC procedures.
(23) Quick Reaction Force procedures.
(24) Logistics planning.
(25) Night operations.
(26) Operational risk management.

Performance Standard. The student will be required to issue a five-paragraph order with associated maps, sketches, and overlays.

Requirement. In an academic environment, the student, when given an examination of various aircraft (based on like aircraft and/or current threat), and with the aid of audio visual equipment, will correctly identify between 50 and 65 aircraft by utilizing the Wing, Engine, Fuselage, and Tail (WEFT) technique.

(1) U.S manned aircraft
(2) Foreign country owned manned aircraft
(3) Unmanned aerial systems (UAS)

Performance Standard. Given an aircraft recognition examination consisting of 50 to 65 manned aircraft and 5 to 10 U.S. UASs, the student will accurately identify in a timeframe of 5 seconds per aircraft and a 5 second delay between aircraft images.

(1) U.S manned aircraft with 100% accuracy.
(2) Foreign country owned manned aircraft with 80% accuracy.
(3) Unmanned aerial systems (UAS) with 80% accuracy.

Reference. FM 3-01.80.

LDBO-161 16.0 B IMTS S/L

Goal. Engage aircraft with the Stinger missile system.

Requirement. The student, during a performance based evaluation, utilizing the Improved Moving Target Simulator (IMTS) or the Stinger Troop Proficiency Trainer (STPT), and using proper operating procedures and firing techniques will engage five jet aircraft, five non-jet propeller driven aircraft, and five helicopters without shooting down friendly aircraft. Scenarios will be pre-approved by the LAAD Officer Course Staff or LAAD Gunner Course staff.

(1) Track and range target (i.e. time count method).
(2) Activate weapon and obtains an acquisition tone.
(3) Insert correct super elevation and lead reticle.
(4) Hold trigger and un-cage bar 3 to 5 seconds to fire weapon and mitigate hang-fire.
(5) Meet requirements performance indicator after each engagement.

Performance Standard. The student will successfully engage at minimum:

(1) Three jet aircraft,
(2) Three non-jet propeller driven aircraft,
(3) Three helicopters

Engagements of friendly aircraft will result in a failure of the evaluation. All students will be given the same scenarios maintained at the LAAD Gunner Course.

Prerequisite. LDBO-101, LDBO-102, LDBO-103, and LDBO-104.

Reference. FM 44-18-1, FM 44-18-1A, and TM 9-1425-429-12.

LDBO-171 2.0 B (1) M240B L

Goal. Perform a function check of the M240B MMG.

Requirement. The student, during a practical exercise, will be given a M240B SL-3 complete in order to perform a function check of the M240B in an unspecified amount of time.

(1) Clear the M240B.
(2) Place the safety to "F".
(3) Pull the cocking handle to the rear to lock the bolt back.
(4) Place the safety to "S".
(5) Depress the trigger, nothing should happen.
(6) Place the safety to "F".
(7) Hold the cocking handle to the rear.
(8) Depress trigger and ease bolt forward to close and lock.

Performance Standard. The student will perform a function check of the M240B IAW the reference.

Prerequisite. LDBO-170.

Reference. MCWP 3-15.1 and TM 08670A-10/1A.

LDBO-172 4.0 B (1) M240B L

Goal. Disassemble a M240B MMG.

Requirement. The student, during a practical exercise, will be given a M240B Sl-3 complete in order to perform the disassembly of a M240B in an unspecified amount of time.

(1) Clear the M240B ensuring the bolt is left forward.
(2) Depress the barrel-locking latch and hold.
(3) Rotate the carrying handle to the upright position.
(4) Remove the barrel by pushing forward and pulling up.
(5) Depress the spring and remove trigger housing spring pin.
(6) Pull trigger housing assembly down and back to remove.
(7) Depress butt-stock latch and lift the butt-stock and buffer assembly to remove.
(8) Press drive spring in and pull; then pull it out of receiver.
(9) Depress cover latches and raise cover assembly.
(10) Pull cocking handle to the rear and remove the bolt and operating rod assembly.
(11) Close cover.
(12) Push out cover hinge spring pin as far as possible and remove.
(13) Remove the cover assembly and feed tray from the receiver.
(14) Rotate the collar clockwise until it releases, then remove it from the gas plug.
(15) Pull the gas plug from the gas regulator.
(16) Separate the bolt from the operating rod by removing the spring loaded pin.
(17) Slide bolt off the firing pin.

Performance Standard. The student will perform the disassembly of a M240B IAW the references.

(3) Clean carbon build up from the gas plug with the scraper and the small reamer.
(4) Clean carbon build up from large gas port hole with a large reamer.
(5) Remove corrosion and dirt from the bore with a cleaning rod and swab dampened with CLP.
(6) Inspect for cracks, dents, burrs, or other damage on the flash suppressor, barrel adapter, and carrying handle.
(7) Put gas regulator back together and set it on setting number 1.
(8) Lightly oil parts with CLP, LAW, or LSA in accordance with climatic considerations after all dirt and corrosion has been removed from all parts.
(9) Check the cover assembly for smooth operation, spring tension, bent parts, or excessive wear.
(10) Check the cocking handle for bends and cracks, free movement, excessive wear, burrs, or chipped rails.
(11) Check the barrel-locking latch and cover for proper tension.
(12) Inspect the trigger assembly for broken grips, bent, cracked, or broken trigger actuating assembly, loose nut or bolt, and chipped or cracked trigger housing holding lug.
(13) Check the tripping lever and sear for burrs, cracks, chips, and wear.
(14) Check the coking action.
(15) Check the functions of the safety lever.
(16) Lightly lubricate the tripping lever and sear surfaces.
(17) Remove carbon build up from piston with the combination tool.
(18) Clean all areas of the operating rod, firing pin, and spring pin and lightly lubricate.
(19) Check the bolt and operating rod assembly for burrs, cracks, broken pins, or frozen roller.
(20) Ensure roller retracts when pushed.
(21) Check the driving spring for broken strands.
(22) Remove carbon build up from gas cylinder bore on the receiver with the gas cylinder cleaning brush.
(23) Assemble the M240B.
(24) Perform a function check of the M240B.

Performance Standard. The student will clean, inspect, and lubricate a M240B IAW the references.

Prerequisite. LDBO-173.

Reference. MCWP 3-15.1 and TM 08670A-10/1A.

LDBO-175 5.0 B (1) M240B L

Goal. Perform operator maintenance on a M240B MMG.

Requirement. The student, during a performance based evaluation, will be given a M240B and all SL-3 components in order to perform operator maintenance in an unspecified amount of time.

(1) Clear a M240B.
(2) Disassemble a M240B.
(3) Clean, inspect, and lubricate a M240B.
(4) Assemble a M240B.
(5) Perform a function check of a M240B.

(10) State the weights of the components of the M240B.

Performance Standard. The student will engage targets within the parameters of each scenario.

Prerequisite. LDBO-176.

Reference. MCWP 3-15.1 and TM 08670A-10/1A.

LDBO-178 1.0 B (1) M240B L

Goal. Engage Targets with the M240B MMG.

Requirement. During a live firing exercise, the student, given a SL-3 complete M240B and 435-rounds of 7.62mm, will engage targets utilizing Table 7 of M240B Familiarization Fire and aerial targets.

Performance Standard. Utilizing proper operating procedures and firing techniques, the student will engage ground and/or an aerial target.

Prerequisite. LDBO-177.

Ordnance. (435) rounds of A131 CTG, 7.62mm, LINKED 4&1.

External Syllabus Support. MMG range capable of supporting mounted and dismounted firing of 7.62mm and .50 cal at 1/5 scale aerial targets flying with varying profiles, and stationary ground targets that are setup at various ranges.

Reference. FM 23-65 and MCWP 3-15.1.

LDBO-179 2.0 B (1) Medium TWS L

Goal. Operate the medium Thermal Weapon Sight (TWS).

Requirement. The student, during a practical application exercise, will be given a medium TWS with SL-3 components and a M240B MMG, will assemble, attach to the M240B and operate indoors/outdoors identifying a target.

(1) Install batteries.
(2) Attach to the M240B.
(3) Power on the medium TWS
(4) Adjust the view of the medium TWS

Performance Standard. The student will assemble, attach to the M240B, and properly operate the medium TWS IAW the reference.

Prerequisite. LDBO-176.

Reference. NET publications.

LDBO-180 2.0 B (1) M2 .50 CAL L

Goal. Clear a M2.50 cal heavy machine gun (HMG).

Requirement. The student, during a practical exercise, will be given a M2 .50 cal SL-3 complete in order to perform the disassembly of a M2 .50 cal in an unspecified amount of time.

(1) Clear the M2 .50 cal.
(2) Disassemble IAW the references.

Performance Standard. The student will perform the disassembly of a M2 .50 cal IAW the references.

Prerequisite. LDBO-181.

Reference. MCWP 3-15.1, FM 23-65, TM 11-5855-213-10, TM 11-5855-214-10 and TM 08670A-10/1A.

LDBO-183 4.0 B (1) M2.50 CAL L

Goal. Assemble a M2 .50 cal HMG.

Requirement. The student, during a practical exercise, will be given a M2 .50 cal SL-3 complete in order to perform the disassembly of a M2 .50 cal in an unspecified amount of time.

(1) Assemble the M2 .50 cal IAW the references.
(2) Set head space.
(3) Set timing.
(4) Perform a function check of the M2 .50 cal.

Performance Standard. The student will perform the disassembly of a M2 .50 cal IAW the reference.

Prerequisite. LDBO-182.

Reference. MCWP 3-15.1, FM 23-65, TM 11-5855-213-10, TM 11-5855-214-10 and TM 08670A-10/1A.

LDBO-184 4.0 B (1) M2.50 CAL L

Goal. Clean, inspect, and lubricate a M2 .50 cal HMG.

Requirement. The student, during a practical exercise, will be given a M2 .50 cal Sl-3 complete and proper lubrication in order to clean, inspect, and lubricate a M2.50 cal in an unspecified amount of time.

(1) Clear the M2 .50 cal.
(2) Disassemble the M2 .50 cal.
(3) Clean, inspect, and lubricate the M2 .50 cal IAW with the references.
(4) Assemble the M2 .50 cal.
(5) Perform a function check of the M2 .50 cal.

Performance Standard. The student will clean, inspect, and lubricate a M2 .50 cal IAW the references.

Prerequisite. LDBO-183.

LDBO-187 8.0 B (1) M2 .50 CAL S

Goal. Operate a M2 .50 cal HMG.

Requirement. The student, utilizing an indoor small arms simulator, will engage silhouette and ranged scenarios with a M2 .50 cal simulator weapon.

(1) Clear the M2 .50 cal.
(2) Set head space.
(3) Set timing.
(4) Perform a function check on the M2 .50 cal.
(5) Operate the M240B by firing from dismounted and mounted positions during the following scenarios:
    (a) Table I dismounted. Use table designed for MOS 7212 as there are no M2 .50 cal tables designed for MOS 7204.
    (b) Mounted Firing Exercise (mixed tgts) = 150+ rounds.
    (c) Mounted Predetermined Target Scenario (stationary tgts) = 150+ rounds.
(6) As needed, perform immediate action.
(7) Clear the M2.50 cal.
(8) State the maximum effective range of the M2 .50 cal.
(9) State the maximum range of the M2 .50 cal.
(10) State the muzzle velocity of the M2 .50 cal.
(11) State the sustained, rapid, and cyclic rate of the M2 .50 cal.
(12) State the weights of the components of the M2 .50 cal.

Performance Standard. The student will engage targets within the parameters of each scenario.

Prerequisite. LDBO-186.

Reference. MCWP 3-15.1, FM 23-65, TM 11-5855-213-10, TM 11-5855-214-10 and TM 08670A-10/1A.

LDBO-188 1.0 B (1) M2 .50 cal L

Goal. Engage targets with the M2 .50 cal HMG.

Requirement. During a live firing exercise, the student, given an SL-3 complete M2 .50 cal and (400) rounds of A-576 .50 cal ammunition will engage targets utilizing Table 7 of M2 .50 cal Familiarization Fire and aerial targets.

Performance Standard. Utilizing proper operating procedures and firing techniques, the student will engage ground and/or an aerial target.

Prerequisite. LDBO-187.

Ordnance. (400) rounds of A-576 .50 cal linked.

External Syllabus Support. MMG range capable of supporting mounted and dismounted firing of 7.62mm and .50 cal at 1/5 scale aerial targets flying with varying profiles, and stationary ground targets that are setup at various ranges.

longer. Upon return to a LAAD billet, the officer will complete R-coded events for this stage of training.

c. Crew Requirement. None.

d. Academic Training. Academic training will be conducted prior to and/or concurrent with required events. An academic event, once completed, can be credited as a prerequisite for follow-on training events.

e. Live and Simulator Event Training. 8 events, 11.0 hours.

COM-200 1.0 B, R L

Goal. Properly handle CMS software (receive, safeguard, use, and proper destruction procedures).

Requirement. Given the reference and in a practical application environment, properly store, use and destroy CMS materials.

Performance Standard. Demonstrate proper handling of CMS software using the two-person integrity method by ensuring proper transportation of the software and accurately completing destruction records per the EKMS-1.

Reference. EKMS-1.

COM-201 1.0 B, R (1) COMSEC EQUIP L

Goal. Operate organic communication security keying devices.

Requirement. With the aid of communicator(s), operate organic security keying devices during a practical application exercise using the below listed equipment:

(1) KOI-18.
(2) KY-99.
(3) AN/CYZ-10 or appropriate Data Transfer Device.
(4) Appropriate radio assets.

Performance Standard. Generate a variable, store a variable, transfer a stored variable, operate, zeroize, and pass secure communications.

Prerequisite. COM-200.

Reference. TM's for KOI-18, (KY-99) TM 11-5810-375-13&P, and (AN/CYZ-10) TM 11-5810-394-20&P.

COM-202 0.5 B, R (1) KL-43C L

Goal. Operate the KL-43C.

Requirement. Given the reference, appropriate keying material, an SL-3 complete KL-43C and associated radios, operate the KL-43C.

Performance Standard. Draft, encrypt, transmit, receive and decrypt, a KL-43C message per the reference.

Prerequisite. COM-200 and COM-201.

External Syllabus Support. (1) MACCS, joint, or coalition sensor.

COM-206 1.0 B,R TACTICAL RADIOS L/S

Goal. Use proper communications procedures.

Requirement. Demonstrate proper use of:

(1) Proper radio/telephone procedures.
(2) Use of brevity codes.
(3) Use of tactical field message book.
(4) Authentication.
(5) Message encryption and decryption.
(6) Bead-window procedures.
(7) Gingerbread procedures.
(8) MIJI reporting procedures.
(9) Lost communications procedures.
(10) Communications jamming countermeasures.

Performance Standard. Given the references, a tactical radio, Authentication/Encryption sheet, and a tactical field message book, establish communications, and transmit and receive messages utilizing proper communications procedures.

Prerequisite. COM-200, COM-201 and COM-203.

Reference. MCWP 3-25.11, MCWP 3-40.3B and MCRP 3-25.10A.

External Syllabus Support. Frequency support.

COM-207 0.5 B S

Goal. State the emergency destruction procedures for all organic command post equipment.

Requirement. Correctly state the emergency destruction procedures of the following equipment:

(1) Remote Terminal Unit (RTU).
(2) HMMWV.
(3) Communications hardware.
(4) COMSEC material/devices.
(5) Ammunition.
(6) Mission essential documents.

Performance Standard. Given a materials list of all organic command post equipment, state emergency destruction established procedures.

Reference. MCWP 3-25.10 and EKMS-1.

3. Control Measures (CTM)

a. Purpose. To train the LAAD officer to attain an understanding of operational terms and graphics to support the planning and employment of LAAD units in both air defense and ground security roles.

b. Refresher Training. None.

4. Navigation (NAV)

a. Purpose. To provide the LAAD officer with fundamental skills to conduct mounted and dismounted navigation.

b. Refresher Training. Refresher training is required once a Core Skill Basic LAAD Officer has been absent from an LAAD billet for 36 months or longer. Upon return to a LAAD billet, the officer will complete R-coded events for this stage of training.

c. Crew Requirement. None.

d. Academic Training. None.

e. Live and Simulator Event Training. 1 event, 10.0 hours.

NAV-211	10.0	B, R	(1) GPS, (1)Compass	D/N	L

Goal. Conduct day and night navigation.

Requirement. Given a current Global Positioning System (GPS), map, compass, and protractor, successfully navigate to designated locations during periods of daylight, darkness, or reduced visibility.

Performance Standard

(1) Find 5 of 5 locations during the day using a map and compass.
(2) Find 4 of 5 locations during times of darkness or reduced visibility using a map and compass.
(3) Find 5 of 5 locations during the day using the current GPS and a HMMWV.
(4) Find 5 of 5 locations at night using current GPS and a HMMWV.

Reference. MCO P1500.44C and TM 11-5825-291-13.

External Syllabus Support. Appropriate range/training area.

5. Battle Management Training (BMT)

a. Purpose. To develop the LAAD officer's understanding of the planning and employment of LAAD units in both air defense and ground security roles. This stage focuses on the concepts of employment for the various missions that may be assigned to LAAD units.

b. Administrative Notes. This is the culminating stage for the Core Skills Basic Phase of training.

c. Refresher Training. Refresher training is required once a Core Skill Basic LAAD Officer has been absent from an LAAD billet for 36 months or longer. Upon return to a LAAD billet, the officer will complete R-coded events for this stage of training.

d. Crew Requirement. A core competent LAAD crew will be required for certain events.

(4) Safety requirements.
(5) Accessibility.
(6) Integration requirements.

Performance Standard. The LAAD officer will establish a command post per the unit SOP, at a minimum the requirements list above will be considered.

Prerequisite. COM-200, COM-201, COM-203, COM-204, COM-205 and COM-206.

Reference. MCWP 3-25.10 and unit SOP.

External Syllabus Support. A training area capable of supporting large numbers of tactical vehicle moving in formations.

BMT-223 1.0 B L

Goal. Familiarize LAAD Plt Cdr with concepts of employment in an air defense role.

Requirement. Given various tactical scenarios, recognize and state the employment concepts of a LAAD platoon in an air defense role.

Performance Standard. With the aid of references, accurately list or state concepts of LAAD employment.

Reference. MCWP 3-25.10.

BMT-224 1.0 B L

Goal. Familiarize LAAD Plt Cdr with concepts of employment considerations in a ground security role.

Requirement. Given various tactical scenarios, recognize and state employment concepts of a LAAD platoon in a ground security role.

Performance Standard. Without error, state and define employment concepts associated with various tactical mission.

Reference. TTECG& MAWTS-1 Convoy Operations Battle Book March 2005, MCWP 3-21.1, MCWP 3-17, MCRP 3-16C, MCRP 3-33.5, MCWP 3-34.1, MCWP 3-15.1, MCRP 3-41.1A and MCWP 3-11.3.

BMT-225 12.0 B, R E L

Goal. Employ a LAAD platoon in a point defense.

Requirement. Given a tactical scenario, plan for and employ a LAAD platoon by addressing, at minimum the following:

(1) IPB (Responsiveness to the Threat).
(2) LAAD capabilities, limitations, and requirements.
(3) Command/support relationships.
(4) Air defense priorities.
(5) Command Post (CP) operations.
(6) Air defense control measures.
(7) ID Criteria.
(8) Rules of engagement.

Evaluator. A designated LETI or WTI.

Prerequisite. COM-200, COM-201, COM-203, COM-204, COM-205, COM-206, CTM-210, BMT-215, BMT-220 and BMT-221.

Reference. MCWP 3-25.10, MCWP 3-25.11, MCRP 3-40.3C, ACP-125, FM 24-18, FMFM 3-1 and MCO 3500.27.

External Syllabus Support. A training area capable of supporting large numbers of tactical vehicle moving in formations, and radio frequencies to command and control.

BMT-229 12.0 B, R E L

Goal. Employ a LAAD platoon for Defense of a maneuver element.

Requirement. Given a tactical scenario, plan for and employ a LAAD platoon for Defense of a maneuver element by addressing the following

(1) IPB (Responsiveness to the Threat).
(2) LAAD capabilities, limitations, and requirements.
(3) Command/support relationships.
(4) Air defense priorities.
(5) Command Post (CP) operations.
(6) Air defense control measures.
(7) ID Criteria.
(8) Rules of engagement.
(9) Surveillance plan.
(10) Integration with MACCS.
(11) Integration with GCE.
(12) Communications planning.
(13) GBDL architecture capabilities/limitations.
(14) Missile re-supply.
(15) Logistics planning.
(16) Helicopter borne operations (where applicable).
(17) Night operations.
(18) Amphibious operations (where applicable).
(19) Operational risk management.

Performance Standard. Per the references,
(1) Develop a plan that addresses the considerations listed above.
(2) Employ a platoon in defense of a maneuver element.

Evaluator. A designated LETI or WTI.

Prerequisite. COM-200, COM-201, COM-203, COM-204, COM-205, COM-206, CTM-210, BMT-215, BMT-220 and BMT-221.

Reference. MCWP 3-25.10, MCWP 3-25.11, MCRP 3-40.3C, ACP-125, FM 24-18, FMFM 3-1 and MCO 3500.27.

External Syllabus Support. A training area capable of supporting large numbers of tactical vehicle moving in formations, and radio frequencies to command and control.

BMT-231 12.0 B, R E L

Goal. Employ a LAAD platoon in a Convoy defense.

(13) Air escort planning and coordination.
(14) Plan for control of Close Air Support.
(15) Integration with higher.
(16) Integration with supported unit.
(17) Communications planning.
(18) Bump plan for personnel and vehicles.
(19) Recovery plan for vehicles.
(20) CASEVAC procedures.
(21) Quick Reaction Force procedures.
(22) Logistics planning.
(23) Night operations.
(24) Operational risk management.

Performance Standard. Per the references,
(1) Develop a plan that addresses the considerations listed above.
(2) Employ a platoon in a Convoy defense.

Evaluator. A designated LETI or WTI.

Prerequisite. COM-200, COM-201, COM-203, COM-204, COM-205, COM-206, CTM-210, BMT-215, BMT-220 and BMT-221.

Reference. TTECG & MAWTS-1 Convoy Operations Battle Book March 2005 (interim replacement for MCRP 4-11.3F Convoy Operations).

External Syllabus Support. A training area capable of supporting large numbers of tactical vehicle moving in formations, and radio frequencies to command and control.

BMT-237 12.0 B, R E L

Goal. Plan for and employ a LAAD platoon in a force protection role.

Requirement. Given a tactical scenario, plan for and employ a LAAD platoon in a force protection role.

Performance Standard. Plan and employ a platoon for Security Patrol by addressing the following:

(1) IPB (enemy situation, terrorist threat, IED and Vehicle Borne IED threat, sniper threat, ambush points, choke points, etc…).
(2) LAAD force protection capabilities, limitations, and requirements.
(3) Command/support relationships.
(4) Command and control.
(5) Route.
(6) Checkpoints.
(7) Entry and exit friendly lines procedures.
(8) Personnel tasks/responsibilities .
(9) Actions on enemy contact.
(10) Positive ID criteria.
(11) Rules of engagement.
(12) Enemy Prisoners of War (EPW) procedures.
(13) Fire Support Plan.
(14) Snap Vehicle Check Point procedures.
(15) Communications planning/hand and arm signals/signal plan.
(16) Attachments (translator, EOD, Engineers, Civil Affairs, etc…).
(17) CASEVAC procedures.
(18) Quick Reaction Force/Incident Response Team procedures.

(f) Smoke.
(2) Demonstrate how to properly engage a target with a M67 fragmentation hand grenade.

Performance Standard. Per the references, properly engage a designated target with an M67 fragmentation hand grenade. Accurately identify and describe various type grenades as required in task (1) above.

Reference. FM 23-30 and STP 21-1-SMCT.

Ordnance. (1) M67 Fragmentation Hand Grenade.

External Syllabus Support. A live fire grenade range that supports use of fragmentation grenades.

WPN-252 2.0 B L/S

Goal. Execute fire commands.

Requirement. Per the reference, when given the below listed fire commands, demonstrate how to properly execute each one.

(1) Initial Commands:
(a) Alert
(b) Direction
(c) Description
(d) Range
(e) Assignment/Method
(f) Control
(2) Subsequent Commands - When adjusting fire, the deflection correction must always be given first: Cease Fire.

Performance Standard. Without error, demonstrate proper action when given each above listed fire command.

Reference. MCWP 3-15.1.

WPN-253 1.0 B (1) M2 .50 CAL L

Goal. Set headspace and timing M2 .50 cal HMG.

Requirement. Per the reference, given an appropriately mounted SL-3 complete M2 heavy machine-gun set headspace and timing.

Performance Standard. Properly set the headspace and timing IAW the references.

Reference. MCWP 3-15.1 and TM 02498A-10/1.

WPN-254 1.0 B (1) M2 .50 CAL L

Goal. Load and Unload the M2 .50 cal HMG.

Requirement. Given an M2 .50 cal, a belt of (100) .50 cal dummy rounds, and all SL-3 components, conduct loading and unloading, and perform operator maintenance.

Reference. MCWP 3-15.1 and TM 02498A-10/1.

Ordnance. (1) belt of (100) .50 cal dummy rounds.

WPN-256	3.0	B, R	(1) M2 .50 CAL	D	L/S

Goal. Engage targets with the M2.50 Cal HMG.

Requirement. Given a SL-3 complete M2.50 Cal HMG and (435) rounds of .50 cal ammunition, engage targets utilizing Table 7 M2 .50 Cal Familiarization Fire and aerial targets.

Performance Standard. Per the references and using proper firing techniques, engage a ground and/or an aerial target(s).

Prerequisite. WPN-253, WPN-254, and WPN-255.

Ordnance. (435) rounds of A576 .50 cal ammunition.

Reference. FM 23-65 and MCWP 3-15.1.

External Syllabus Support. Heavy machine-gun range capable of supporting mounted and dismounted firing of an M2 .50 cal at 1/5 scale aerial targets flying with varying profiles, and stationary ground targets that are setup at various ranges.

WPN-257	1.0	B	(1) M240B	N/D	L

Goal. Load and Unload the M240B MMG.

Requirement. Given a M240B, a belt of (100) 7.62mm dummy rounds, and all SL-3 components, conduct loading and unloading of the M240B and perform operator maintenance. This event shall be conducted in daylight first to ensure competency and ORM is applied. Once proficiency is demonstrated, this event will be conducted in hours of darkness or reduced visibility.

(1) Clear a M240B.
(2) Perform a function check of a M240B.
(3) State types of ammunition that may be fired by the M240B.
(4) Identify characteristics of ammunition that may be fired by the M240B MMG.
(5) State the Weapon Conditions pertaining to the M240B.
(6) Inspect ammunition.
(7) Load the M240B with the cover assembly open and place into Condition 3 within 15 seconds.
(8) Place the M240B into Condition 1
(9) Unload the M240B and place into Condition 4.
(10) Load the M240B with the cover assembly closed and place into Condition 3 within 15 seconds.
(11) Place the M240B into Condition 1.
(12) Unload the M240B and place into Condition 4.

Performance Standard. Properly load and unload the M240B IAW the references. The M240B shall be properly loaded within 15 seconds each with the cover assembly open and closed. Once the event is

6. Gunnery (GUN)

a. Purpose. To provide the LAAD Officer with the necessary skills to engage rotary and fixed wing aircraft using a stinger missile in various types of environments - day, night, and unusual weather conditions.

b. Administrative Notes. Live firing is critical to establish a Marine's confidence in a weapon system. In today's world of reduced budgets, every effort must be made to make each training missile/round count. The challenge is not to simply place weapons on line and aimlessly send missiles/rounds down range, but to ensure accuracy of each round/missile. Each missile/round should be scored, recorded and analyzed to ensure the maximum training benefit is being achieved. Subject to the availability of missiles and targets, all 7204s assigned to an active battalion in the operating forces should fire at least one Stinger missile (FIM-92A/C/D) during a three year period. Commanders shall ensure those members participating in live missile firing exercises have completed appropriate T&R prerequisites as outlined in the applicable syllabus. All missile firings should be conducted under conditions that closely simulate actual conditions expected to be encountered in the tactical environment (within applicable safety and range constraints), and include the participation of other elements of the MACCS whenever possible.

c. Crew Requirements. None.

d. Academic Training. Appropriate academic training and lectures for the Core Basic Training Stage as depicted in Appendix B Academic training will be conducted prior to and concurrent with required events.

e. Refresher Training. Refresher training shall be conducted when a LAAD Basic Officer return to a LAAD unit after serving more than 36 months outside of a LAAD Basic Officer billet in the operating forces. Upon return, the Officer will complete "R" coded events for this stage of training.

f. Live and simulated training. 5 events, 7.0 hours.

GUN-271	1.0	B,R	(1) THT	L/S

Goal. Demonstrate engagement process for Stinger missile.

Requirement. During a live exercise, the Officer, given a THT, will engage an aerial target.

(1) Track and range target (i.e. time count method).
(2) Activate weapon and obtains an acquisition tone.
(3) Insert correct super elevation and lead reticle.
(4) Hold trigger and un-cage bar 3 to 5 seconds to fire weapon.
(5) Remove BCU from the grip-stock immediately.
(6) Meet requirements on THT performance indicator after each THT engagement.

Performance Standard. Utilizing proper operating procedures and firing techniques, the Officer will engage an aerial target with a THT.

External Syllabus Support. Appropriate aerial targets, RCMAT, and/or Remotely Piloted Target Systems (RPVTS) and firing range capable of supporting SHORAD missile systems.

GUN-273 2.0 B (1) IMTS S

Goal. Engage aircraft employing infrared counter measures (IRCCM's) in different simulated environments.

Requirement. Range, identify, and engage aircraft in the IMTS. The scenarios will include:

(1) Ten F/W scenarios containing
  (a) Scenarios will include a minimum of 1 friendly and 1 hostile aircraft. Aircraft speeds will vary between 200-450 knots.
  (b) Five crossing scenarios where F/W aircraft range between 1-8 kilometers with altitudes between 3-12 thousand feet.
    - One scenario will include 2 hostile aircraft together.
    - One scenario will ensure aircraft are out of range.
  (c) Five incoming scenarios where F/W aircraft range between 2-7 kilometers at any altitude below 15,000 feet.
    - One scenario will include 2 hostile aircraft together.
    - One scenario will ensure aircraft are out of range.
(2) Ten R/W scenarios containing:
  (a) Scenarios will consist of a minimum of 1 friendly and 1 hostile aircraft. Aircraft speed will not exceed 200 knots.
  (b) Five crossing scenarios were R/W aircraft range between 1-8 kilometers with altitudes between 3-12 thousand feet.
    - One scenario will include 2 hostile aircraft together with one terrain masking for the entire flight.
    4. One scenario will include aircraft are out of range.
  (c) Five incoming scenarios where R/W aircraft range between 2-7 kilometers at any altitude below 15000 feet.
    - One scenario will include 2 hostile aircraft together.
    - One scenario will ensure aircraft are out of range.

Performance Standard. The Officer must properly identify targets IAW established rules of engagement. The Officer must demonstrate proper detection, acquisition, ranging, super elevation, and firing techniques. Actions are to be evaluated using the MTS. A total of 20 engagements are required.

Prerequisite. GUN-271 and GUN-272.

Reference. MCWP 3-25.11 and FM 44-1A.

GUN-274 1.0 B, R, E (1) STLS L

Goal. Fire the Stinger Launch Simulator (STLS).

Requirement. Given a tactical scenario that includes enemy and friendly AOB, ROE, Air Defense Control Measures, and appropriate target, conduct a MANPAD engagement with the STLS. Engagement may be conducted during times of daylight, darkness, or reduced visibility. The STLS will be fired on an appropriate range while observing applicable safety constraints and considerations.

prepares the BCBO to be capable of planning for and employing a Battery/Battalion to fulfill any LAAD primary or secondary mission in support/defense of the MACCS, ACE and MAGTF. Personnel trained in the Core Skill Advanced phase are Marines a commanding officer feels are capable of directing the actions of subordinates during wartime scenarios. Upon completion of this phase of training, the LAAD officer has met the requirements for BCBO certification and is eligible for designation as a BCBO by the commanding officer.

b. Core Skills Advance Stages

(1) Crew Management Training (CMT)
(2) Battle Management Training (BMT)

2. Crew Management Training (CMT)

a. Purpose. To provide the LAAD officer with advanced skills to ensure operational readiness through unit training, maintenance management, administration, safety, and troop welfare.

b. Refresher Training. Refresher training is required once a Core Skill Basic LAAD Officer has been absent from an LAAD billet for 36 months or longer. Upon return to a LAAD billet, the officer will complete R-coded events for this stage of training.

c. Crew Requirement. None.

d. Academic Training. Academic training will be conducted prior to and/or concurrent with required events. An academic event, once completed, can be credited as a prerequisite for follow-on training events.

e. Live and Simulator Event Training. 1 event, 3.0 hours.

CMT-300	3.0	B, R	L

Goal. Develop and Implement a Unit Training Plan

Requirement. Given appropriate Marine Corps orders, and current readiness information, develop and implement a unit training plan.

Performance Standard. The training plan will incorporate training events that support the mission essential tasks listed in chapter 1 of this Manual.

Reference. MCWP 3-25.10, MCWP 3-25.11, MCRP 3-0A, and MCRP 3-0B.

3. Battle Management Training (BMT)

a. Purpose. To provide the LAAD officer with skills necessary for the planning and employment of LAAD units in both air defense and ground security roles with a focus on integration with other agencies of the MAGTF.

b. Administrative Notes. Completion of Expeditionary Warfare School (Resident or Non-Resident) constitutes completion of T&R events BMT-302, BMT-310, BMT-313 and BMT-314.

Performance Standard. The LAAD officer will accurately state or list the above.

Reference. MCWP 3-25, MCWP 3-25.3, MCWP 3-25.4, MCWP 3-25.5, MCWP 3-25.7, MCWP 3-25.8, and MCWP 3-25.10.

BMT-304 10.0 B L

Goal. Understand the six functions of Marine Aviation.

Requirement. Given the references demonstrate an understanding of the six functions of Marine Aviation listed below by defining and stating capabilities and key components of each:

(1) Offensive Air Support
(2) Anti-Air Warfare
(3) Electronic Warfare
(4) Assault Support
(5) Control of Aircraft and Missiles
(6) Reconnaissance

Performance Standard. The LAAD officer will accurately state capabilities and key components of each of the six functions of Marine Aviation.

Prerequisite. BMT-303.

Reference. MCWP 3-25, MCWP 3-23, MCWP 3-22, MCWP 3-24, MCWP 3-26, and MCWP 3-36.1.

BMT-305 10.0 B, R L

Goal. Understand aviation planning documents and systems.

Requirement. Given the references, demonstrate an understanding of aviation planning documents and systems, to include:

(1) Planning Documents:
    (a) Air Tasking Order (ATO).
    (b) Airspace Control Plan (ACP).
    (c) Airspace Control Order (ACO).
    (d) Area Air Defense Plan (AADP).
(2) Planning Systems:
    (a) OPTASKLINK.
    (b) TBMCS.
    (c) C2PC.
    (d) Falcon View Program.

Performance Standard. The LAAD officer will accurately list and define aviation planning documents.

Prerequisite. BMT-303.

Reference. FMFM 5-4A, FMFM 5-60, JPUB 3-56.1, and MCWP 3-22.

BMT-310 10.0 B, R L

Goal. Understand the Marine Corps Planning Process (MCPP).

(i) Religious ministry support.
(j) Financial management.
(k) Communications and information systems.
(l) Billeting.
(m) Messing.

(7) Maritime Preposition Force:
(a) Survey, Liaison, Reconnaissance Party (SLRP).
(b) Offload Preparation Party (OPP).
(c) Arrival and Assembly Operations Element (AAOE).

(8) Command and Control:
(a) Aviation Ground Support Operations Center (AGSOC).
(b) Combat Service Support Operations Center (CSSOC).
(c) Airfield Arrival Control Group/Departure Airfield Control Group (AACG/DACG).

Performance Standard. Pass a written examination and practical application with 80% accuracy.

Prerequisite. BMT-302.

Reference. MCWP 4-1 and MCWP 4-1.1.

BMT-314 5.0 B, R L

Goal. Understand Command and Support Relationships.

Requirement. Given the references and a scenario, demonstrate an understanding of Command and Support Relationships, at minimum to include:

(1) Operational Control.
(2) Tactical Control.
(3) Administrative Control.
(4) Direct Liaison Authorized (DIRLAUTH).
(5) Direct Support.
(6) General Support.
(7) Attachment.
(8) Assignment.

Performance Standard. With aid of the reference, address in detail each of the items listed above that applies to the scenario.

Reference. MCWP 3-40.1.

BMT-315 5.0 B,R L

Goal. Demonstrate an understanding of the Marine Aviation Wing (MAW).

Requirement. Given the references demonstrate an understanding of the Marine Aviation Wing (MAW's) units, systems, capabilities and limitations to include, at minimum, the following:

(1) Marine Air Groups:
(a) Marine Aviation Logistics Squadron F/W & R/W.
(b) Marine Aerial Refueler Transport Squadron.
(c) Marine Tactical Electronic Warfare Squadron.
(d) Marine Fighter Attack Squadron.
(e) Marine Attack Squadron.

most demanding combat tasks. These personnel are the most experienced personnel within a unit. They are expected to display the maturity and tactical/operational skill commensurate with this status on a daily basis. Upon completion of Core Skills Plus training, BCBO's will be capable of planning for and employing a Battery/Battalion to fulfill any LAAD primary or secondary mission in a Joint/Coalition environment.

b. Core Skill Plus Stage. Battle Management Training (BMT).

2. Battle Management Training (BMT)

a. Purpose. To train the LAAD officer in planning for and employment of LAAD units in both air defense and ground security roles. This stage focuses on integration and planning with other agencies of the MAGTF.

b. Administrative Note. Written examinations for 400-level events are developed and maintained by MAWTS-1. Unit S-3s will coordinate with MAWTS-1 GBAD Division for testing materials. Successful completion of Expeditionary Warfare School (Resident or Non-Resident) constitutes successful completion of BMT-401.

c. Prerequisite. Must be a certified LAAD Platoon Commander (LDPC) - CERT600 - in order to complete any Core Skills Plus Training.

d. Refresher Training. Refresher training is required once a Core Skill Basic LAAD Officer has been absent from an LAAD billet for 36 months or longer. Upon return to a LAAD billet, the officer will complete R-coded events for this stage of training.

e. Crew Requirement. None.

f. Academic Training. Academic training will be conducted prior to and/or concurrent with required events. An academic event, once completed, can be credited as a prerequisite for follow-on training events.

g. Live and Simulator Event Training. 6 events, 48.0 hours.

BMT-401	3.0	B,R	L

Goal. Understand Combatant Commands and Component Commands.

Requirement. Given the references, demonstrate an understanding of combatant commands and components to include at minimum:

(1) Combatant Commanders - Geographic Commands:
  (a) Central Command.
  (b) Pacific Command.
  (c) European Command.
  (d) Southern Command.
  (e) Northern Command.
(2) Combatant Commanders - Functional Commands:
  (a) Strategic Command.
  (b) Transportation Command.
  (c) Joint Forces Command.
  (d) Special Operations Command.
(3) Service Component Commands:
  (a) Army Component Command.

BMT-404 10.0 B, R L

Goal. Understand Joint Air Defense Weapon Systems and Joint Air Surveillance Assets.

Requirement. Demonstrate an understanding of Joint Air Defense Weapon Systems and Joint Air Surveillance Assets, to include at a minimum:

(1) US Army capabilities and limitations:
    (a) Patriot.
    (b) SHORAD.
    (c) THAAD.
(2) US Navy capabilities and limitations:
    (a) Aegis Guided Missile Cruisers and Destroyers.
    (b) SPY-1 Radar.
    (c) F/A-18C/D.
    (d) E-2C Hawkeye.
(3) US Air Force capabilities and limitations:
    (a) Combat Reporting Center (CRC).
    (b) AN/TPS-75 Radar.
    (c) F-15C/E.
    (d) F-16C/CJ/ADF.
    (e) Air Operations Center (AOC).
    (f) E-3 Airborne Warning and Control.
    (g) Joint Surveillance, Target Attack Radar System (JSTARS).
(4) USMC capabilities and limitations covered in BMT-303 & BMT-304.

Performance Standard. Pass a written examination with 80% accuracy.

Prerequisite. BMT-303, BMT-401, BMT-402 and BMT-403.

Reference. MCRP 3-25E and JP 3-01.

BMT-405 10.0 B, R L

Goal. Plan for LAAD employment in a Joint/Combined environment.

Requirement. Given a tactical scenario, develop a plan to employ a LAAD unit in a Joint/Combined environment, to include:

(1) Joint/Combined air defense weapon systems.
(2) Joint/Combined air surveillance assets.
(3) Joint/Combined terminology.
(4) Joint/Combined interoperability.

Performance Standard. The plan shall effectively employ the LAAD unit in a Joint/Combined environment.

Prerequisite. BMT-303, BMT-401, BMT-402, BMT-403, BMT-404.

Reference. MCWP 3-25.10, MCWP 3-25.11, MCWP 3-22, FMFM 5-60, NWP 3-01.01 and JPUB 3-56.1.

BMT-406 10.0 B, R L

Goal. Plan for LAAD operations.

Requirement. Introduce the following:

(1) Introduce/discuss instruction techniques.
(2) Introduce/discuss instructor duties:
    (a) How to prepare a period of instruction.
    (b) How to conduct a class.
    (c) How to evaluate and document student performance.
    (d) Class management.
(3) Review training references, to include:
    (a) Unit Training Management (UTM).
    (b) Aviation T&R Program Manual.
    (c) Local/unit SOPs.

Performance Standard. Pass a verbal exam with 80% accuracy.

IUT-501 6.0 B L

Goal. Understand instructor administrative duties

Requirement. This event must cover all instructor duties to include administrative duties, training requirements, CRM training and readiness record keeping, and evaluation documentation.

(1) Thoroughly understand the contents of the following training manuals/references:
    (a) Aviation T&R Program Manual.
    (b) LAAD T&R Manual.
    (c) Local/unit SOPs.
(2) Understand aviation T&R Program policy and requirements.
(3) Record keeping:
    (a) Review training documentation requirements.
    (b) Properly record/log incomplete/completed events.
    (c) Properly file required documentation in the IPR.
(4) Fully understand all LAAD system components and their functions.

Performance Standard. Pass a verbal exam with 80% accuracy.

IUT-502 2.0 B L

Goal. Conduct a period of instruction on a LAAD training event.

Requirement. Using operational LAAD systems and classroom facilities, demonstrate the ability to:

(1) Conduct a formal period of instruction on a LAAD training event in this syllabus. *The Officer must be proficient and current in the event being instructed.*
(2) Evaluate student performance.
(3) Correct student deficiencies in a timely manner.
(4) Properly debrief students on their performance and provide corrective action.
(5) Complete an IPR for the each student trained.

Performance Standard. During the period of instruction demonstrate the ability to instruct, evaluate and debrief students.

Prerequisite. IUT-500.

(2) In order for a certification to remain current, a LAAD officer shall maintain proficiency all core skills required for that certification to remain current.

(3) If proficiency is lost for one or more core skills, the officer shall regain proficiency by completing all R-coded events within each core in which the proficiency was lost.

c. Certifications

Platoon Commander
Battery Commander/Battalion Staff Officer

CERT-600

Goal. Tracking Code for LAAD Platoon Commander Certification.

Requirement. Upon completion of the prerequisite, the officer individual will be certified in writing as a LAAD Platoon Commander by the Battalion Commander.

Prerequisite. Graduate from LAAD Basic Officer School. Completion of the 200 phase events listed in the Individual CSP Attain Table for PLT CDR.

CERT-602

Goal. Tracking code for Battery Commander/Battalion Staff Officer Certification.

Requirement. The LAAD Officer will be certified as a LAAD Battery Commander/Battalion Staff Officer upon completion of all events in the 300 phase. The Battalion Commander will sign the certification letter stating the individual is certified as a LAAD Btry/Bn Staff Officer.

Prerequisite. CERT-600. Completion of the 300 phase events listed in the Individual CSP Attain Table for Staff Officer.

3. Qualifications. None.

4. Designations

a. Purpose. To track the designation of LAAD combat leaders, officer "positions," and instructors. All syllabus training requirements for a specific designation must be complete prior to being designated. Training management personnel shall log final designation codes once designated by the commanding officer or direct representative.

b. Administrative Notes

(1) A commanding officer may grant a designation to a LAAD officer when the officer completes all training requirements for that designation. The designation is effective when the squadron WTI reviews the IPR and staffs the designation letter, the commander signs the letter, the appropriate designation code is logged, and all administration is complete.

213. T&R SYLLABUS MATRIX. The below matrix summarizes the syllabus training requirements by phase, core skills and events.

LAAD OFFICER EVENT SUMMARY MATRIX

STAGE	EVENT CODE	EVENT DESCRIPTION	COUNT flt events	FLT HRS / LIVE	COUNT sim events	SIM HRS	REFLY INTERVAL	POI	EVAL	TYPE	TOTAL #	OPTIONS	CONDITIONS	PREREQ	CRP	CHAINING	OLD EVENT CODE CONVERSION
CORE SKILL INTRODUCTION																	
LDBO	101	CAPABILITIES & LIMITATIONS		3.0			*	B				L			0.7		
LDBO	102	STINGER MISSLE INSPECTION				2.0	*	B				S			0.7		
LDBO	103	STINGER MISSILE CONVERSION				2.0	*	B				S			0.7		
LDBO	104	STINGER MISSILE PROCEDURES		1.0			*	B				L			0.7		
LDBO	105	IFF OPERATING SYSTEM		4.0			*	B				L			1.0		
LDBO	106	STINGER NIGHT SIGHT (SNS)		1.0			*	B				L			1.0		
LDBO	110	VHF COMMUNICATIONS		8.0			*	B				L/S			1.0		
LDBO	111	VHF COMMUNICATIONS		1.0			*	B				L			1.0		
LDBO	112	HF COMMUNICATIONS		8.0			*	B				L/S			1.0		
LDBO	113	HF COMMUNICATIONS		1.0			*	B				L			1.0		
LDBO	114	VHF COMMUNICATIONS		1.0			*	B				L			1.0		
LDBO	116	HANDLING CMS MATERIAL		3.5			*	B				L			0.7		
LDBO	117	EMERGENCY DESTRUCTION		1.0			*	B				L			1.0		
LDBO	120	ESTABLISH GBDL		8.0			*	B				L			1.0		
LDBO	125	LAND NAVIGATION		2.0			*	B				L			1.0		
LDBO	126	OPERATE A GPS DEVICE		12.0			*	B				L			1.0		
LDBO	127	LAND NAVIGATION		8.0			*	B				L			1.1		
LDBO	130	OPERATIONAL TERMS & GRAPHICS		4.0			*	B				L			1.0		
LDBO	131	MANUAL CROSS-TELL		1.5			*	B				L			1.0		
LDBO	134	LAAD STRUCTURE		1.0			*	B				L			0.7		

CORE SKILL INTRODUCTION PHASE TOTALS																	
			50	**232.0**	**3**	**20.0**									**60.0**		
CORE SKILL BASIC																	
COMMUNICATIONS (COM)																	
COM	200	HANDLE CMS SOFTWARE		1.0				B, R				L			0.3		
COM	201	SECURITY KEYING DEVICES		1.0			12	B, R				L		COM-200	0.3		
COM	202	OPERATE THE KL-43C		0.5				B, R				L		COM-200, COM-201	0.3		
COM	203	HF AND VHF COMMUNICATIONS		4.0				B, R				L		COM-200, COM-202	0.3		
COM	204	AN/MRC-148		1.0				B, R				L		COM-200, COM-201, COM-203	0.3		
COM	205	ESTABLISH GBDL		2.0			12	B, R				L		COM-200, COM-201, COM-203	0.3		
COM	206	COMMUNICATIONS PROCEDURES		1.0			12	B, R				L/S		COM-200, COM-201, COM-203	0.3		
COM	207	EMERGENCY DESTRUCTION				0.5		B				S			0.3		
			7	**10.5**	**1**	**0.5**									**2.4**		
CONTROL MEASURES (CTM)																	
CTM	210	OPERATIONAL TERMS & GRAPHICS		3.0				B,R				L			0.3		
			3.0	**3.0**	**0**	**0.0**									**0.3**		
NAVIGATION (NAV)																	
NAV	211	NAVIGATION		10.0			12	B, R				L	D/N		0.3		
			1	**10.0**	**0**	**0.0**									**0.3**		
BATTLE MANAGEMENT TRAINING (BMT)																	
BMT	215	INTELLIGENCE PREPARATION OF THE BATTLEFIELD (IPB)		4.0				B, R				L			0.3		
BMT	220	OPERATION ORDER		3.0			12	B, R				L		CTM-210, BMT-215	0.3		

BMT	229	LAAD EMPLOYMENT		12.0			B, R	E			L		COM-200, COM-201, COM-203, COM-204, COM-205, COM-206, CTM-210, BMT-215, BMT-220, BMT-221	0.7	BMT-221, BMT-223, BMT 226		
BMT	231	LAAD EMPLOYMENT		12.0			B, R	E			L		COM-200, COM-201, COM-203, COM-204, COM-205, COM-206, CTM-210, BMT-215, BMT-220, BMT-221	0.7	BMT-221, BMT-223, BMT 227		
BMT	232	LAAD EMPLOYMENT		24.0			B,R	E			L		COM-200, COM-201, COM-203, COM-204, COM-205, COM-206, CTM-210, BMT-215, BMT-220, BMT-221	0.7	BMT-221, BMT-223, BMT 228		

GUN	275	STINGER MISSILE ENGAGEMENT		1.0			36	B, R	E			L		GUN-271, GUN-272, GUN-273, GUN-274	1.0	GUN-271, GUN-273		
			3	3.0	2	4.0									2.9			
CORE SKILL BASIC PHASE TOTALS																		
			23	130.5	1	0.5									15.00			
CORE SKILL ADVANCED																		
CREW MANAGEMENT TRAINING (CMT)																		
CMT	300	IMPLEMENT UNIT LEVEL TRAINING		3.0			12	B, R				L			2.0			
			1	3.0	0	0.0									2.0			
BATTLE MANAGEMENT TRAINING (BMT)																		
BMT	302	MARINE AIR GROUND TASK FORCE (MAGTF)		10.0			12	B, R				L			2.5			
BMT	303	MARINE AIR COMMAND & CONTROL SYSTEM (MACCS)		10.0				B, R				L			2.5			
BMT	304	SIX FUNCTIONS OF MARINE AVIATION		10.0				B				L		BMT-303	1.0			
BMT	305	AVIATION PLANNING		10.0			12	B, R				L			2.0			
BMT	310	MARINE CORPS PLANNING PROCESS (MCPP)		10.0			12	B, R				L			2.0			
BMT	311	ANTI TERRORISM FORCE PROTECTION (AT/FP)		10.0			12	B, R				L		LEVEL-I AT/FP LECTURE	2.0			
BMT	313	LOGISTICAL PLANNING		10.0				B, R				L		BMT-302	2.0			
BMT	314	COMMAND SUPPORT RELATIONSIPS		5.0			18	B, R				L			1.5			
BMT	315	MARINE AVIATION WING (MAW)		5.0				B,R				L			1.5			
BMT	316	MARINE COMBAT DIVISION (GCD)		5.0				B				L			1.0			
			10	85.0	0	0.0									18.0			
CORE SKILL ADVANCE PHASE TOTALS																		
			11	88.0	0	0.0									20.00			
CORE PLUS																		
BMT	401	COMBATANT & COMPONENT COMMANDS		3.0				B, R				L			0.5			

			2	0.0	0	0.0									0.0			
DESIGNATIONS (DESG)																		
DESG	601	LAAD PLATOON COMMANDER DESIGNATION		0.0			*							CERT-600				
DESG	603	BATTERY COMMANDER/BATTALION STAFF OFFICER DESIGNATION		0.0			*							CERT-602				
DESG	672	LETI DESIGNATION		0.0			*							LETI COURSE				
DESG	677	WTI DESIGNATION		0.0			*							WTI COURSE				
			4	0.0	0	0.0									0.0			

(2) Image Projector - Consists of 16 identical image projectors that project the image created in the image generator. NMC occurs when 13 or more of the total 16 image projectors fail. PMC occurs when 12 or less image projectors fail and the 90% sector capability remains.

c. Instrumented Weapon Round - The IMTS can support up to three instrumented missiles at one time. Routinely, scenario training requires one MANPAD team (two Marines).

(1) Instrumented Missile - IMTS can support up to three instrumented missiles. NMC occurs when 3 of the 3 instrumented missiles fail. PMC occurs when 2 of 3 instrumented missiles fail.

(2) Instrumented Grip-stock - IMTS can support up to three instrumented grip-stocks. NMC occurs when 3 of the 3 grip-stocks fail. PMC occurs when 2 of 3 grip-stocks fail.

LAAD SIMULATOR MISSION ESSENTIAL SUBSYSTEM MATRIX (MESM)		
FAILED SUB SYSTEM	NMC for:	PMC for:
NETWORK SERVER INTERFACE	All Events	None
AUDIO SUBSYSTEM	No Event	No Event
IMAGE GENERATOR	All Events	All events
IMAGE PROJECTOR	All Events	All Events
INSTRUMENTED MISSILE	All Event	All Events
INSTRUMENTED GRIP-STOCK	All Event	All Events

216. EXPENDABLE ORDNANCE REQUIREMENTS

1. A LAAD Officer is trained in phases 100, 200, and 300 of the LAAD Gunner Basic POI. Ordnance requirement for each to complete the Basic POI is provided below.

BASIC POI TOTAL EXPENDABLE ORDNANCE REQUIREMENTS PER INDIVIDUAL			
ORDNANCE	100 PHASE TOTALS RDS	200 PHASE TOTALS RDS	300 PHASE TOTALS RDS
(1) Belt of 100 Dummy .50 cal, A560	200	200	0
Live A-576 .50 cal linked	400	435	0
A-159 Dummy 7.62mm linked	100	200	0
Live A-131 7.62 linked	435	435	0
Stinger Missile PL-89, PL-90, or PL-93	1	1	0
VX-99 - Stinger Missile Launch Simulator (STLS)	0	1	0
M67 Fragmentation Hand Grenade	0	1	0

CHAPTER 3

LOW ALTITUDE AIR DEFENSE (LAAD) GUNNER (MOS 7212)

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FIGURE

3-1	LAAD ENLISTED TRAINING PROGRESSION MODEL. . . .	3-3

CHAPTER 3

LOW ALTITUDE AIR DEFENSE (LAAD) GUNNER (MOS 7212)

300. INDIVIDUAL TRAINING AND READINESS REQUIREMENTS. This T&R syllabus is based on specific goals and performance standards designed to ensure individual proficiency in Core Skills. The goal of this chapter is to develop individual and unit war fighting capabilities.

301. TRAINING PROGRESSION MODEL. This model represents the recommended training progression for the average LAAD Gunner in terms of core skill, certification and designation attainment (see fig. 2-1). Units should use the model as a point of departure to generate individual training plans.

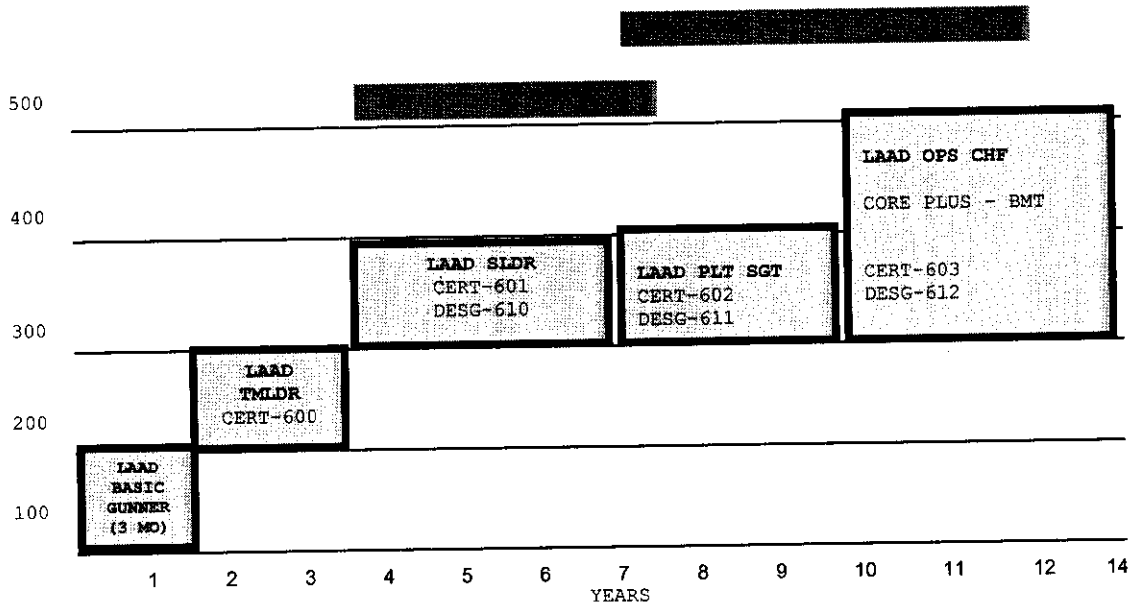

Figure 3-1.--LAAD Enlisted Progression Model.

302. INDIVIDUAL CORE SKILL PROFICIENCY (CSP) REQUIREMENTS. A CSP unit consists of individuals representing each billet who have achieved and currently maintain individual CSP. In order to be considered proficient in a core skill, an individual must attain and maintain proficiency in core skill events as delineated in the below paragraphs.

1. Events Required to Attain Individual CSP. To initially attain CSP in a core skill, an individual must simultaneously have a proficient status in **all** 200-300 phase T&R events listed for that core skill:

2. Events Required to Maintain Individual CSP. To maintain CSP in a core skill, an individual must maintain proficiency in all 200-300 phase T&R events listed for that Core Skill:

INDIVIDUAL CSP MAINTAIN TABLE

	GA	GG	VACR	GTR	TEAD	TEGD	SEC	CMA	MAN	C2
Team Leader (TMLDR) (7212)	NVD212R COM218R	WPN232R WPN240R WPN246R WPN249R WPN251R GUN252R GUN255R GUN256R	VID260R	VID261R	MAN273R	NAV203R NAV204R MAN274R		CMT281R CMT282R CMT283R CMT286R CMT287R CMT288R CMT289R	CTM266R MAN273R MAN274R	CMT280R
Section Leader (SLDR) (7212)	COM306R COM307R COM310R COM311R COM312R COM313R COM319R COM320R COM321R COM326R COM394R	GUN323R GUN324R GUN373R	VID327R	VID329R		NAV300R NAV303R	SEC367R	BMT347R BMT349R BMT350R BMT352R BMT353R BMT355R BMT356R BMT358R BMT360R	CTM335R CTM336R CTM337R CTM339R CTM340R CTM342R CTM343R	BMT361R
Plt Sgt (7212)	COM306R COM307R COM310R COM311R COM313R COM320R COM321R COM326R							BMT347R BMT349R BMT350R BMT353R BMT358R BMT360R	CTM335R CTM336R CTM337R CTM339R CMT340R CMT342R CMT343R	BMT361R
Ops Chf (7212)	COM306R COM310R COM311R COM319R COM320R COM321R COM394R					NAV303R		BMT349R BMT358R BMT360R BMT386R BMT388R BMT392R	CTM341R	BMT361R BMT362R BMT363R

3. Events Required to Attain Individual Proficiency in Core Plus Skills. Proficiency in core plus skills is not required to obtain unit CSP. Training to core plus skills is at the discretion of the unit commanding officer. To attain proficiency in a core plus skill, an individual must simultaneously have a proficient status in all of the T&R events listed above in the Individual CSP Attain Table for that core plus skill.

ATTAIN INDIVIDUAL CORE PLUS SKILL

	GG	CMA	
Plt Sgt/ Ops Chf (7212)	GUN414R GUN416R	BMT400R BMT402R BMT404R BMT406R BMT413R	BMT401R BMT403R BMT405R BMT407R BMT419R

2. Qualification. The LAAD Gunner syllabus does not contain qualifications.

QUALIFICATION	TRACKING CODE	REQUIREMENTS
None	NA	NA

3. Designation

a. A designation is a status assigned to an individual based on leadership ability. Designations are command specific and remain in effect until removed for cause or the individual is transferred to another command. Follow-on commands shall repeat the "initial documentation procedure." T&R syllabi shall refer to the MAWTS-1 course catalog and other applicable directives for instructor designation criteria.

b. Unit instructors are designated by the commanding officer. As a minimum, a unit should maintain one Weapons and Tactics Instructor (WTI) to support LAAD training and operations. LAAD SNCOs (7212) receive MOS 7277 upon completion of the WTI course. The completion certificate shall be placed in the IPR per chapter 2 of the reference. Instructor designations are outlined in the MAWTS-1 Course Catalog and applicable directives.

DESIGNATION	TRACKING CODE	REQUIREMENT
Section Leader (SLDR)	DESG-610	CERT-601
Platoon Sergeant (PLT SGT)	DESG-611	CERT-602
Battery/Battalion Operations Chief (OPS CHF)	DESG-612	CERT-603
LAAD Enhanced Tactics Instructor (LETI)	DESG-672	LETI Course Graduate
Weapons and Tactics Instructor (WTI)	DESG-677	WTI Course Graduate

304. PROGRAMS OF INSTRUCTION (POI)

1. Basic POI

WEEKS	COURSE / PHASE	ACTIVITY
1-12	Core Skill Introduction Training	MCD, USAADSCH
13-64	Core Skill Basic Training	LAAD Unit
65-169	Core Skill Advance Training	LAAD Unit
170-190	Core Plus Training	LAAD Unit

2. Refresher POI

WEEKS	COURSE / PHASE	ACTIVITY
12	Core Skill Basic Training	LAAD Unit
26	Core Skill Advanced Training	LAAD Unit
26	Core Skill Plus Training	LAAD Unit

305. ACADEMIC TRAINING

1. Academic training shall be conducted for each phase/stage of the syllabus. Commanders are strongly encouraged to incorporate the lectures in

qualified range safety officer to control all missile- firing exercises. All missile firings should be conducted under conditions which closely simulate actual conditions expected to be encountered in the tactical environment (within applicable safety and range constraints), and include the participation of other elements of the MACCS whenever possible.

4. M2 .50-cal HMG and M240B MMG Training. LAAD Battalions should establish a machine gun Firing Course (as proscribed in MCWP 3-15.1) for Gunners to obtain training in firing the M2 .50 cal and M240B machineguns; at minimum 468 qualification rounds per machine gun. All familiarization firings (600 rounds per machine gun) will be conducted separately and shall simulate tactical conditions expected to be encountered in the actual combat environment (within applicable safety and range constraints). All firings will include a mix of vehicle mounted and standard dismounted machine gun employment.

307. CORE SKILL INTRODUCTION TRAINING

1. General

a. This phase provides entry-level instruction to develop the basic skills necessary for a student to meet the requirements to be assigned MOS 7212, Low Altitude Air Defense Gunner. Embedded in this entry-level training is machine gun instruction required to support the secondary LAAD mission of providing ground security forces in defense of MAGTF air sites when not engaged in air defense operations. Failure of this machine gun training does not constitute failure of the LAAD Gunner Course due to its disassociation with the primary air defense mission. LAAD Gunners are considered trained on primary and secondary weapon systems for deployment purposes; however, if the student fails to qualify with the weapons during entry-level instruction, further fleet training will be required to ensure the Gunner achieves qualification on these secondary weapons. This phase of training is complete upon graduation from the LAAD Gunners Course, Marine Corps Detachment (MCD), U.S. Army Air Defense Artillery School (USAADASCH).

b. Core Skill Introduction Stage. Low Altitude Air Defense Basic Gunner Training (BGNR).

2. Low Altitude Air Defense Basic Gunner Training (BGNR)

a. Purpose. To train students in entry level skills and provide them with a general working knowledge on the characteristics, capabilities, limitations, and operations of LAAD related systems and equipment.

b. Prerequisite. Must possess a GT score of 90 or higher, secret security clearance, normal color vision, 20/20 vision (may be correctable to 20/20 with eye glasses or contacts lenses, cannot be left eye dominant, not less than 64 inches in height, and must be a male U.S. citizen.

c. Crew Requirements. None.

d. Academic Training. Appropriate academic training will be IAW approved LAAD Basic Gunner Course POI.

e. Live and simulated training. 46 events, 475.75 hours.

(1) Maximum speed of a target that the weapon system would be able to engage.
(2) Maximum speed of the missile (confidential).
(3) Types of heat and light sources tracked by the missile and the effects from the environment.
(4) Maximum range of missile (confidential).
(5) Inner launch boundary (confidential).
(6) Firing angle and position limitations.
(7) Target aircraft categories that the missile may engage.
(8) Gyro field of view (confidential).
(9) Range ring rules (confidential).

Performance Standard. The student is required to state or identify all items with 80% accuracy.

Reference. FM 44-18-1A (confidential), Basic I&KP instructor publication (confidential), and RMP I&KP instructor publication (confidential).

BGNR-104 4.0 B (1) SNS L

Goal. Operate the Stinger Night Sight (SNS).

Requirement. The student, during a practical application exercise, will be given a SNS with all SL-3 components and will mount, operate and dismount the equipment on a Tracking Head Trainer (THT).

(1) Install battery/power source.
(2) Mount the SNS on the THT.
(3) Turn the power switch to the on position.
(4) Adjust settings on the SNS.
(5) Turn the power switch to the off position.
(6) Dismount the SNS from the THT.
(7) While live tracking engage target with the SNS.

Performance Standard. The student will, in a dark setting, correctly mount the SNS on a training Stinger missile and operate the SNS.

Reference. TM 09688A-10&P (AN/PAS-18) or replacement NET SNS publications.

BGNR-105 2.75 B (1) FHT S

Goal. Inspect a Stinger missile.

Requirement. In an academic setting, without the aid of reference, the student will conduct the thirteen critical checks to inspect a training Stinger missile. The following equipment will be provided: One Field Handling Trainer (FHT), training grip-stock, and a dummy BCU (not inserted).

(1) Blowout disk.
(2) Squib leads.
(3) Launch tube.

(1) Hang-fire: Continues to track the target for an additional 3 to 5 seconds, keeping firing trigger and un-cage bar depressed.
(2) Misfire:
    (a) Immediately removes BCU with left hand and does not point towards skin. Removes IFF interconnecting cable from grip-stock.
    (b) Places weapon in dud pit 50 meters from firing position, having missile positioned with both ends away from personnel, stationing front of missile elevated down range approx. 20 degrees. Gunner will step away from missile by not stepping in front of, over, or behind weapon.
    (c) Marks the location of the weapon so that it can be observed from a safe location.
    (d) The gunner will step away from the missile by not stepping in front of, over, or behind the weapon.
    (e) Evacuates personnel to a distance no less than 1200 feet. Establishes a guard and maintains observation of the missile until destroyed.
    (f) Notifies EOD of the situation immediately and of the initial trigger pull to identify a 30 minute lapse before EOD personnel may move the misfired missile, if required.
(3) DUD (Eject Only):
    (a) Marks location of dud so it can be observed from a safe location.
    (b) Evacuates personnel to a distance no less than 1200 feet. Establishes a guard and maintains observation of the missile until destroyed.
    (c) Notifies EOD immediately of the situation and time of the initial trigger pull to assist in identifying a 30 minute lapse of time.

Performance Standard. Without error, answer and perform each of the events listed above.

Reference. FM 44-18-1, TM 9-1425-429-12, and MCWP 3-25.10.

BGNR-108 2.0 B ACADEMICS L

Goal. Understand LAAD employment in an air defense role.

Requirement. In an academic setting, without the aid of reference, the student will be able to conduct the following:

(1) Define the employment guidelines.
(2) State or identify the basic components of a convoy.
(3) Define the four weapon applications, one implied task, and secondary mission.
(4) Define the Air Defense Weapons Conditions (ADWC).
(5) Define the air defense States Of Alert (SOA).
(6) Define the air defense Weapons Control Statuses (WCS).

Performance Standard. Without error, state each of the events listed above.

Reference. MCRP 3-25.10.

BGNR-109 9.5 B (1) SINCGARS L

(8) Check distance between each transmitting/receiving station.
(9) Check crypto fill.

Performance Standard. The standard is met when the student correctly identifies the fault and establishes communication with a designated station.

Prerequisite. BGNR-109.

External Syllabus Support. ACEOI or training frequencies and/or a frequency hopping load set.

Reference. FM 24-18, TM 11-5820-890-10-1, TM 11-5820-890-10-2, TM 11-5820-890-10-3 and TM 11-5820-890-10-4.

BGNR-111 3.5 B ACADEMICS L

Goal. Understand proper handling of CMS materials.

Requirement. In an academic environment, without the aid of reference, the student will understand how to properly store, use, and destroy CMS materials. The student will state or identify:

(1) The CMS software and corresponding equipment.
(2) The proper handling considerations for CMS material in a tactical environment.
(3) The proper transportation considerations for CMS materials in a tactical and non-tactical environment.
(4) The destruction procedures in accordance with the reference.
(5) The definition of Two Person Integrity (TPI).

Performance Standard. Without error, state each of the events listed above.

Reference. EKMS 1.

BGNR-112 2.5 B (1) SINCGARS L

Goal. Perform basic communication skills.

Requirement. The student will perform basic communication skills during a practical application exercise in an academic environment with the aid of a SL-3 complete SINCGARS and AKAC 1553. The student, given a communication requirement, will:

(1) Establish communications with a distant station.
(2) Request current Air Defense Status Message.
(3) Authenticate the station providing the current Air Defense Status Message.
(4) Send current position to distant station encrypted.
(5) Pass Engagement Report to distant station.
(6) Receive encrypted message from distant station and decrypt.

Performance Standard. Without error perform each of the events listed above.

Prerequisite. BGNR-108, BGNR-109, BGNR-110, and BGNR-111.

BGNR-116 8.0 B (2) RTU & (2) SINCGARS L

Goal. Establish a Ground Based Data Link (GBDL) utilizing the Remote Terminal Unit (RTU).

Requirement. The student, given a tactical scenario, will set up and operate the RTU with current EADS software. The student will:

(1) Activate RTU.
(2) Initialize RTU.
(3) Configure system.
(4) Select units of measure.
(5) Enter Sectors of Fire and Primary target line limits.
(6) Input emplacement data.
(7) Receive GBDL-E data.
(8) Identify direction of target from current position.
(9) Operate LAAD mail.

Performance Standard. The student will initialize the RTU receive and process early warning data utilizing the RTU.

Prerequisite. BGNR-108, BGNR-109, BGNR-110, BGNR-111, BGNR-112, BGNR-113, BGNR-114, and BGNR-115.

Reference. TM 10296A-10/1-2, current EADS software, and EADS update publications.

External Syllabus Support. Approved targets by MARCORSYSCOM, targets of opportunity or scenario driven from external station.

BGNR-117 14.5 B (1) GPS UNIT D L

Goal. Operate a military Global Positioning System (GPS).

Requirement. During a practical application exercise, the student, given a military GPS, a map, and a tactical scenario, will successfully navigate under real world conditions.

(1) Initialize the military GPS.
(2) View current position display.
(3) Mark current position as a waypoint.
(4) Enter additional waypoints.
(5) Perform navigation operations.
(6) State how to zeroize the GPS.
(7) Locate the map datum horizontal and spheroid

Performance Standard. Utilizing a military GPS, the student will correctly input required data and navigate to/from five designated distant navigational points (start/end point is one of the five points).

Prerequisite. BGNR-113.

External Syllabus Support. Approved local training area.

Reference. TM 09880C-OR.

(1) Ensure the safety is on "F" FIRE.
(2) Pull the cocking handle to the rear, while maintaining positive control of the cocking handle, to lock the bolt back.
(3) Place safety to "S" SAFE while still maintaining positive control of the cocking handle.
(4) Push in on the latches to open the cover assembly.
(5) Remove ammunition if applicable.
(6) Raise the feed tray.
(7) Visually and physically inspect the chamber to ensure it is empty.
(8) If a round is still in the chamber remove it.
(9) Lower the feed tray.
(10) Place the safety on "F".
(11) Hold the cocking handle to the rear, depress the trigger, and ease the bolt forward to close and lock.
(12) Close the cover assembly.

Performance Standard. The student will clear the M240B MMG IAW the references.

Reference. MCWP 3-15.1 and TM 08670A-10/1A.

BGNR-121 2.0 B (1) M240BMMG L

Goal. Perform a function check of the M240B MMG.

Requirement. The student, during a practical exercise, will be given a M240B MMG SL-3 complete in order to perform a function check of the M240B MMG in an unspecified amount of time.

(1) Clear the M240B MMG.
(2) Place the safety to "F" FIRE.
(3) Pull the cocking handle to the rear to lock the bolt back while still maintaining positive control of the cocking handle.
(4) Place the safety to "S" SAFE.
(5) Depress the trigger, nothing should happen.
(6) Place the safety to "F" FIRE.
(7) Hold the cocking handle to the rear.
(8) Depress the trigger and ease the bolt forward to close and lock.

Performance Standard. The student will perform a function check of the M240B MMG IAW the reference.

Prerequisite. BGNR-120.

Reference. MCWP 3-15.1 and TM 08670A-10/1A.

BGNR-122 4.0 B (1) M240BMMG L

Goal. Disassemble a M240B MMG.

Requirement. The student, during a practical exercise, will be given a M240B MMG SL-3 complete in order to perform the disassembly of a M240B MMG in an unspecified amount of time.

(10) Slide butt-stock downward on the end of the receiver until it locks in place.
(11) Insert the trigger housing assembly into the receiver.
(12) Insert the trigger housing assembly spring pin, from the right side, into the hole securing the assembly to the receiver.
(13) Insert the barrel fully into the socket of the receiver and align the rear of the gas plug with the gas cylinder.
(14) Depress the barrel-locking latch and fully seat the barrel into the receiver.
(15) Release the barrel-locking latch and rotate the barrel changing handle down to the lowered position to lock the barrel in place while counting the number of clicks (2-7 clicks is operational).
(16) Perform a function check of the M240B MMG.

Performance Standard. The student will disassemble the M240B MMG IAW the references.

Prerequisite. BGNR-122.

Reference. MCWP 3-15.1 and TM 08670A-10/1A.

BGNR-124 5.0 B (1) M240BMMG L

Goal. Clean, inspect and lubricate a M240B MMG.

Requirement. The student, during a practical exercise and given a M240B MMG SL-3 complete and proper lubrication materials, will clean, inspect and lubricate a M240B MMG in an unspecified amount of time.

(1) Clear the M240B MMG.
(2) Disassemble the M240B MMG.
(3) Clean carbon build up from the gas plug with the scraper and the small reamer.
(4) Clean carbon build up from large gas port hole with a large reamer.
(5) Remove corrosion and dirt from the bore with a cleaning rod and swab dampened with CLP.
(6) Inspect for cracks, dents, burrs, or other damage on the flash suppressor, barrel adapter, and carrying handle.
(7) Put gas regulator back together and set it on setting number 1 **(APPLIES ONLY TO M240B BARRELS THAT HAVE A REMOVALBE GAS PLUG REGULATOR).**
(8) Lightly oil parts with RBC, CLP, LAW, or LSA in accordance with climatic considerations after all dirt and corrosion has been removed from all parts **(ONLY RBC WILL BE USED ON ALL PARTS THAT WILL TOUCH AMMUNITION; I.E. BORE, CHAMBER, BOLT FACE, FEED TRAY).**
(9) Check the cover assembly for smooth operation, spring tension, bent parts, or excessive wear.
(10) Check the cocking handle for bends and cracks, free movement, excessive wear, burrs, or chipped rails.
(11) Check the barrel-locking latch and cover for proper tension.
(12) Inspect the trigger assembly for broken grips, bent, cracked, or broken trigger actuating assembly, loose nut or bolt, and chipped or cracked trigger housing holding lug.

Prerequisite. BGNR-125.

Reference. MCWP 3-15.1 and TM 08670A-10/1A.

BGNR-127 5.0 B (1) M240BMMG L

Goal. Troubleshoot the M240B MMG.

Requirement. In an academic environment, during a performance based evaluation, the student will be given a M240B MMG SL-3 complete and a belt of 7.62mm dummy rounds in order to conduct troubleshooting procedures.

(1) Clear the M240B MMG.
(2) Perform a function check on the M240B MMG.
(3) Load a belt of 100 7.62mm rounds.
(4) State hot and cold barrel identification procedures.
(5) State troubleshooting procedures for the M240B MMG.
    (a) Immediate Action procedures.
    (b) Redial Action procedures.
        1. Stuck cartridge case or live round.
        2. Ruptured cartridge.
    (c) Redial Action for common performance problems.
        1. Fails to fire on initial burst.
        2. Failure to feed.
        3. Weapon stops firing.
        4. Failure to chamber.
        5. Failure to fire.
        6. Failure to extract.
        7. Failure to eject.
(6) Clear the M240B MMG.
(7) State ammunition care, handling, and preservation.
(8) State the maximum effective range of the M240B MMG.
(9) State the maximum ranges of the M240B MMG.
(10) State the muzzle velocity of the M240B MMG.
(11) State the sustained, rapid, and cyclic rate of fires of the M240B MMG
(12) State the weights of the components of the M240B MMG
(13) State the eight main assemblies and their Purpose:
(14) State the cycle of operation.

Performance Standard. The student will load a belt of (100) 7.62mm dummy rounds into M240B MMG and perform troubleshooting procedures during a performance based evaluation IAW the references.

Prerequisite. BGNR-126.

Ordnance. 100 rounds of A159 Dummy, Cartridge, 7.62mm Linked.

Reference. MCWP 3-15.1 and TM 08670A-10/1A.

BGNR-128 16.0 B (1)INDOOR SMALL ARMS SIMULATOR S

Goal. Operate a M240B MMG.

Requirement. The student, during a practical exercise, will be given a M2.50 Cal SL-3 complete in order to perform a function check of M2.50 Cal in unspecified amount of time.

(1) Clear the M2.50 Cal.
(2) Grasp the retracting slide handle and pull to the rear.
(3) Return the retracting slide handle forward.
(4) The bolt should stay locked to the rear. Press the bolt release latch and let the bolt slam forward.
(5) Press the trigger and you should hear the firing pin fire.

Performance Standard. The student will perform a function check of the M2.50 Cal IAW the references.

Prerequisite. BGNR-129.

Reference. MCWP 3-15.1, FM 23-65, TM 11-5855-213-10, TM 11-5855-214-10 and TM 08670A-10/1A.

BGNR-131 4.0 B (1) M2.50 CAL L

Goal. Disassemble a M2.50 Cal HMG.

Requirement. The student, during a practical exercise, will be given a M2.50 Cal SL-3 complete in order to perform the disassembly of a M2.50 Cal in an unspecified amount of time.

(1) Clear the M2.50 Cal.
(2) Disassemble the M2.50 Cal.

Performance Standard. The student will perform the disassembly of a M2 .50 Cal IAW the references.

Prerequisite. BGNR-130.

Reference. MCWP 3-15.1, FM 23-65, TM 11-5855-213-10, TM 11-5855-214-10 and TM 08670A-10/1A.

BGNR-132 4.0 B (1) M2.50 CAL L

Goal. Assemble a M2.50 Cal HMG.

Requirement. The student, during a practical exercise, will be given a M2 .50 Cal SL-3 complete in order to perform disassembly of a M2.50 Cal in unspecified amount of time.

(1) Assemble the M2.50 Cal.
(2) Set head space.
(3) Set timing.
(4) Perform a function check of the M2.50 Cal.

Performance Standard. The student will perform the disassembly of a M2 .50 Cal IAW the references.

Prerequisite. BGNR-131.

(8) Half load the M2.50 cal (Condition 2).
(9) Full Load the M2.50 Cal (Condition 1).
(10) Unload the M2.50 Cal and place into Condition 4.
(11) Load the M2.50 Cal with the cover assembly closed and Place into Condition 3 within 15 seconds.
(12) Half load the M2.50 cal (Condition 2).
(13) Full Load the M2.50 Cal (Condition 1).
(14) Unload the M2.50 Cal and place into Condition 4.

Performance Standard. The student will perform loading and unloading procedures pertaining to the M2.50 Cal IAW the references. When loading the M2.50 Cal, the student will load the ammunition properly within 15 seconds each with the cover assembly open and closed.

Prerequisite. BGNR-134.

Reference. MCWP 3-15.1 and TM 02498A-10/1.

BGNR-136 5.0 B (1) M2.50 CAL L

Goal. Troubleshoot M2.50 Cal HMG.

Requirement. The student, during a performance-based evaluation, will be given M2.50 Cal SL-3 complete and 100 dummy rounds of .50 Cal in order to conduct troubleshooting procedures.

(1) Clear the M2.50 Cal.
(2) Perform a function check on the M2.50 Cal.
(3) Load a belt of 12.7mm dummy rounds.
(4) State hot and cold barrel identification procedures.
(5) Troubleshoot the M2.50 Cal.
    (a) Immediate Action procedures.
    (b) Redial Action procedures.
        1. Stuck cartridge case or live round.
        2. Ruptured cartridge.
    (c) Redial Action for common performance problems.
        1. Fails to fire on initial burst.
        2. Failure to feed.
        3. Weapon stops firing.
        4. Failure to chamber.
        5. Failure to fire.
        6. Failure to extract.
        7. Failure to eject.
        8. Bolt will not lock
        9. Weapon will not unlock.
        10. Weapon will not cock.
(6) Clear the M2.50 Cal.

Performance Standard. The student will load 100 dummy .50 Cal rounds linked into the M2.50 Cal and perform troubleshooting procedures IAW the references.

Prerequisite. BGNR-135.

Ordnance. (1) belt of (100) A560 Dummy .50 Cal.

(7) Establish secondary firing position 10-20 meters from primary firing position with identified SOF and PTL.
(8) Emplace the vehicle approximately 15 meters from primary firing position utilizing cover and concealment.
(9) Establish 2-man fighting position in vicinity between the primary and secondary firing positions.
(10) Establish dud pit approximately 50 meters from primary firing position in a manner not to interfere with air defense mission or force protection.
(11) Conduct a map study identifying an alternate Stinger team position 500 - 1000 meters away from primary firing position.
(12) Establish GBDL.
(13) Create range cards for each weapon system at the primary position.
(14) Commence team operations.

Performance Standard. The student will properly establish a tactical Stinger team position by completing all performance steps IAW the reference.

Prerequisite. BGNR-100, BGNR-101, BGNR-102, BGNR-103, BGNR-104, BGNR-105, BGNR-106, BGNR-107, BGNR-108, BGNR-109, BGNR-110, BGNR-111, BGNR-112, BGNR-113, BGNR-114, BGNR-115, BGNR-116, BGNR-117, BGNR-118 and BGNR-119.

Reference. MCRP 3-25.10.

BGNR-141	64.0	B	IMTS	S/L

Goal. Engage aircraft with the Stinger missile system.

Requirement. The student, during a performance based evaluation, utilizing the Improved Moving Target Simulator (IMTS) or the Stinger Troop Proficiency Trainer (STPT), and using proper operating procedures and firing techniques will engage five jet aircraft, five non-jet propeller driven aircraft, and five helicopters without shooting down friendly aircraft. Scenarios will include all aircraft aspects (incoming-crossing, outgoing-crossing, incoming, and outgoing with occasional friendly aircraft). Students will receive Rule Of Engagement (ROE), employment guideline utilized, missile load, and Sector Of Fires (SOF) for each scenario. Scenarios will be pre-approved by the LAAD Gunner Course staff.

(1) Track and range target (i.e. time count method).
(2) Activate weapon and obtains an acquisition tone.
(3) Insert correct super elevation and lead reticle.
(4) Hold trigger and un-cage bar 3 to 5 seconds to fire weapon and mitigate hang-fire.
(5) Meet requirements performance indicator after each engagement.

Performance Standard. The student will successfully engage at minimum:

(1) Three of five jet aircraft.
(2) Three of five non-jet propeller driven aircraft.
(3) Three of five helicopters.

Ordnance
(1) of following Stinger missile types: PL-89, PL-90, or PL-93, and (1) PN-15 or PN-16 Stinger grip-stocks (Basic/RMP).

External Syllabus Support. Appropriate aerial targets, RCMAT, and/or Remotely Piloted Target Systems (RPVTS) and firing range capable of supporting SHORAD missile systems.

Reference. FM 44-18-1 and TM 9-1425-429-12.

BGNR-145 1.0 B (1) M240B MMG L

Goal. Engage targets with the M240B MMG.

Requirement. During a live firing exercise, the student, given a SL-3 complete M240B and 435-rounds of 7.62mm, will engage targets utilizing Table 7 M240B Familiarization Fire (MOS 7212)(435-rds).

Performance Standard. Utilizing proper operating procedures and firing techniques, the student will engage ground targets.

Prerequisite. BGNR-120, BGNR-121, BGNR-122, BGNR-123, BGNR-124, BGNR-125, BGNR-126, BGNR-127 and BGNR-136.

Ordnance. (435) rounds of A131 CTG, 7.62mm, LINKED 4&1.

External Syllabus Support. Medium machine-gun range capable of supporting mounted and dismounted firing of 7.62mm at 1/5 scale aerial targets flying with varying profiles, and stationary ground targets that are setup at various ranges.

Reference. FM 23-65 and MCWP 3-15.1.

BGNR-146 1.0 B (1) M2.50 CAL L

Goal. Engage targets with the M2.50 Cal HMG.

Requirement. During a live firing exercise, the student, given a SL-3 complete M2.50 Cal and 435-rounds of 12.7mm, will engage targets utilizing Table 7 M2.50 Cal Familiarization Fire (MOS 7212)(435-rds).

Performance Standard. Utilizing proper operating procedures and firing techniques, the student will engage ground targets.

Prerequisite. BGNR-128, BGNR-129, BGNR-130, BGNR-131, BGNR-132, BGNR-133, BGNR-134, BGNR-135, BGNR-137 and BGNR-143.

Ordnance. (435) rounds of A576 CTG, CAL .50, 4&1 LINKED, F/M2.

External Syllabus Support. Heavy machine-gun range capable of supporting mounted and dismounted firing of .50 cal at 1/5 scale aerial targets flying with varying profiles, and stationary ground targets that are setup at various ranges.

Reference. FM 23-65 and MCWP 3-15.1.

(1) Symbol of the weapon.
(2) The azimuth (degrees) and distances (meters) of the firing position from an easily recognizable terrain feature. If there is no easily recognizable terrain feature, an eight digit grid coordinate may be used.
(3) Left and right lateral limits.
(4) Likely avenues of approach.
(5) Dead space.
(6) Direction of magnetic North.
(7) Identification data to include unit designation (no higher than company/battery), date of preparation, and firing position (primary, alternate, or supplementary).

Performance Standard. Utilizing proper operating procedures and techniques, the student will place the M2.50 Cal into action within the required time (dismounted = 2 minutes, mounted = 1 minute) IAW the references.

Prerequisite. BGNR-127 and BGNR-137.

Reference. FM 23-27 and MCRP 3-25.10*.

BGNR-151 4.0 B L

Goal. Basic IED Awareness.

Requirement. During an academic setting, the student will be introduced to basic IED awareness.

Performance Standard. The student will be familiar with the basic IED threat.

Reference. Current GTA 90-10-046.

BGNR-152 44.0 B ACADEMICS L

Goal. Visually identify aircraft.

Requirement. In an academic environment, the student, when given an examination of various aircraft (based on like aircraft and/or current threat), and with the aid of audio visual equipment, will correctly identify between 50 and 65 aircraft by utilizing the Wing, Engine, Fuselage, and Tail (WEFT) technique.

(1) U.S manned aircraft.
(2) Foreign country owned manned aircraft.
(3) Unmanned Aerial Systems (UAS).

Performance Standard. Given an aircraft recognition examination consisting of 50 to 65 manned aircraft and 5 to 10 U.S. UASs, the student will accurately identify in a timeframe of 5 seconds per aircraft and a 5 second delay between aircraft images.

(1) U.S manned aircraft with 100% accuracy.
(2) Foreign country owned manned aircraft with 80% accuracy.
(3) UAS with 80% accuracy.

c. Administrative Notes

(1) Only designated WTI and LETI who are proficient and current in the event being instructed shall evaluate refresher or certification events as noted in the event itself.

(2) Events that are not refresher or certification can be evaluated by LAAD personnel who are current in the event being taught.

d. Core Skill Basic Stages

(1) Navigation (NAV)
(2) Night Vision Devices (NVD)
(3) Communications (COM)
(4) Weapons (WPN)
(5) Gunnery (GUN)
(6) Visual Identification (VID)
(7) Control Measures (CTM)
(8) Maneuver (MAN)
(9) Crew Management (CMT)

2. Navigation (NAV) Training

a. Purpose. To instruct the Gunner on basic skills needed to effectively maneuver while performing duties in a tactical environment.

b. Crew Requirement. None.

c. Academic Training. Appropriate academic training and lectures for the Core Basic Training Stage as depicted in Appendix B. Academic training will be conducted prior to and concurrent with required events.

d. Refresher Training. Refresher training shall be conducted when LAAD Basic Gunners return to a LAAD unit after serving more than 36 months outside of a Basic Gunner billet in the operating forces. Upon return, the Gunner will complete "R" coded events for this stage of training.

e. Live and simulated training. 5 events, 20.0 hours.

NAV-201 1.0 B (2) MAPS L

Goal. State map information and perform mapping skills.

Requirement. Without the aid of references, state the map information below:

(1) State the colors on a map and what they represent.
(2) Provided with (10) six digit grids from two different maps, identify map features as listed in the legend.
(3) Provided with (5) locations from (2) different maps, identify the six-digit grid for each location.
(4) Provided with two azimuths from two different maps, convert each azimuth:
    (a) One from Grid North to Magnetic North.
    (b) One from Grid North to True North.
(5) State the horizontal datum for the maps used.

External Syllabus Support. Training area with an intermediate land navigation course.

NAV-204 6.0 B, R (1) GPS D L

Goal. Conduct day navigation with a military GPS.

Requirement. Given 5 way points, navigate an intermediate land navigation course using a military GPS during daylight on foot in accordance with the references (way points will be no more than 2000 meters apart):

(1) Set up "Navigation Menu" on the GPS for navigation operations.
(2) Enter 5 waypoints.
(3) Navigate to the 5 designated way points.

Performance Standard. Find 5 of the 5 points.

Evaluator. Designated LETI or WTI only.

Prerequisite. NAV-203.

Reference. FM 3-25.26, TM 11-5820-1172-13(DAGR) and TM 11-5825-291-13 (PLGR).

External Syllabus Support. Training area with an intermediate land navigation course.

NAV-205 6.0 B (1) GPS, (1) Len static Compass N L

Goal. Conduct night navigation with a compass and military GPS.

Requirement. Using an intermediate land navigation course, navigate during hours of darkness or reduced visibility on foot using a military GPS and a compass. (Points of an intermediate course will be no longer the 2000 meter apart.)

(1) Navigate 3 points using a military GPS.
(2) Navigate 3 points using a lensatic compass.

Performance Standard. Find 3 of the 3 points with the GPS and 2 of the 3 points using a lensatic compass.

Evaluator. Designated LETI or WTI only.

Prerequisite. NAV-201, NAV-203 and NAV-204.

Reference. FM 3-25.26, TM 11-5820-1172-13 (DAGR) and TM 11-5825-291-13 (PLGR).

External Syllabus Support. Training area with an intermediate land navigation course.

Performance Standard. Complete all required tasks within time allotted.

Evaluator. Designated LETI or WTI only.

Prerequisite. NVD-210.

Reference. TM09688A-10&P.

NVD-212	2.0	B, R	(1) HWWMV, (1) AN/PVS-7B	N	L

Goal. Operate Night Vision Devices (NVD).

Requirement. Per the reference, inventory, set up and operate the NVD while helmet mounted per the following; night illumination should vary to get full appreciation of the night vision device:

(1) Remove and inventory the contents of the NVD per the TM.
(2) Install battery (either two AA or one BA 5567).
(3) Perform preventive maintenance checks and services per the TM.
(4) Install the helmet mount bracket and the helmet mount.
(5) Install Night vision devices (NVDs) on helmet mount and adjust distance for eye relief.
(6) Attach the compass.
(7) Turn Night vision devices (NVDs) on and focus all lens.
(8) Move on foot no less then 200 meters over uneven terrain utilizing the Night vision devices (NVDs) with compass attached.
(9) Operate a blacked out HMMWV for 1 hour on an established course while wearing NVDs.

Performance Standard. Operate the NVD while operating a tactical vehicle in black out conditions along an established course without the use of headlights.

Evaluator. Designated LETI or WTI only.

Prerequisite. Valid HMMWV license.

Reference. TM 09500A-10/1A.

External Syllabus Support. Night driving course.

4. Communications (COM)

a. Purpose. To train the LAAD Gunner on proper communication procedures, communication equipment set up, operations, and the basics in communication through hand and arm signals.

b. Crew Requirement. None.

c. Academic Training. Appropriate academic training and lectures for the Core Basic Training Stage as depicted in Appendix B. Academic training will be conducted prior to and concurrent with required events.

d. Refresher Training. Refresher training shall be conducted when LAAD Basic Gunners return to a LAAD unit after serving more than 36 months outside

Requirement. Without the aid of reference, given a training AKAC-1553 and a SINCGARS radio set up for communication, demonstrate proper authentication and encryption procedures while communicating with a distance station (this can be accomplished by having two Marines communicate with each other using two separate radios). Transmit and receive the following:

(1) Initiate a radio check.
(2) Respond to an authentication challenge within 30 seconds with the correct response. Correctly respond to 5 authentications.
(3) Receive a radio check.
(4) Request/receive current Air Defense Control Measures.
(5) Pass a position report.
(6) State the phonetic alphabet and numbers.
(7) Request for supplies using a provided list of brevity codes.
(8) Authenticate another station and wait for the proper response. Correctly challenge the other station five times.
(9) Encrypt each item below in a time period of 30 minutes:
    (a) Two six-digit grids.
    (b) Two names (i.e. rank/last name).
(10) Receive two encrypted messages that must be de-encrypted within 10 minutes.
    (a) One 6-digit grid.
    (b) One name (i.e. rank/last name).

Performance Standard. Complete all tasks above without error in the prescribed time limits listed above.

Prerequisite. Attend Lectures A-14 and A-18.

Reference. ACP-125, MCWP 3-25.11, MCRP 3-25.10* and EKMS 1.

COM-218	1.0	B, R	(2) AN/VRC-91	L

Goal. Setup, operate, and troubleshoot an RT-1523, SINCGARS radio.

Requirement. Without the aid of references, setup, operate, and troubleshoot a RT-1523, SINCGARS radio.

(1) Setup an AN/PRC-119 for frequency hopping communications, and communicate with another station.
(2) Modify an AN/PRC-119 that is set up for frequency hoping to single channel communications.
(3) Install a VRC-91 onto the vehicle mounting plate.
(4) Covert a PRC-119 to a VRC-91.
(5) Perform troubleshooting for degraded communications with both PRC-119 and VRC-91.

Performance Standard. Communicate with a distant station utilizing proper communication procedures for items listed above.

Prerequisite. COM-217.

Reference. TM 11-5820-890-10-1 and TM 11-5820-890-10-2.

of a Basic Gunner billet in the operating forces. Upon return, the Gunner will complete "R" coded events for this stage of training.

e. Live and simulated training. 18 events, 27.0 hours.

WPN-224 2.0 B L/S

Goal. Execute fire commands.

Requirement. Per the reference, when given the below listed fire commands, demonstrate how to properly execute each one.

(1) Initial Commands:
    (a) Alert
    (b) Direction
    (c) Description
    (d) Range
    (e) Assignment/Method
    (f) Control
(2) Subsequent Commands - When adjusting fire, the deflection correction must always be given first: Cease Fire.

Performance Standard. Without error, demonstrate proper action when given each above listed fire command.

Reference. MCWP 3-15.1.

External Syllabus Support. Machine-gun range that supports mounted and dismounted firing or an Indoor Standardized Marksmanship Trainer (ISMT).

WPN-225 1.0 B L

Goal. State characteristics of the M2 .50 cal HMG.

Requirement. Without the aid of reference, state the characteristics of the M2.

(1) Weights/measurements.
(2) Ranges.
(3) Ammunition types.
(4) Rates of fire.
(5) Manipulation (tripod mount, tripod controlled).

Performance Standard. Accurately state all the characteristics for the M2 as listed above.

Reference. MCRP 3-15.1.

WPN-226 1.0 B (1) M2 .50 Cal L

Goal. Dissemble and assemble the M2 .50 cal HMG.

Requirement. Per the reference, disassemble the M2 into the eight major groups and then re-assemble within a time limit of five minutes.

Requirement. The Gunner, during a performance based evaluation, will be given a M2, a belt of 12.7mm dummy rounds, and all SL-3 components in order to conduct loading and unloading of the M2 perform operator maintenance in an unspecified amount of time. The Gunner will load the weapon both open and closed within 15 seconds each.

(1) Clear a M2.
(2) Perform a function check of a M2.
(3) State types of ammunition that may be fired by the M2.
(4) Identify the characteristics of ammunition that may be fired by the M2.
(5) State the Weapon Conditions pertaining to the M2.
(6) Inspect ammunition.
(7) Load the M2 with the cover assembly open and place into Condition 3 within 15 seconds.
(8) Half load the M2 (Condition 2).
(9) Full Load the M2 (Condition 1).
(10) Unload the M2 and place into Condition 4.
(11) Load the M2 with the cover assembly closed and Place into Condition 3 within 15 seconds.
(12) Half load the M2 (Condition 2).
(13) Full Load the M2(Condition 1).
(14) Unload the M2 and place into Condition 4.

Performance Standard. The Gunner will perform loading and unloading procedures pertaining to the M2 IAW the references. When loading the M2, the Gunner will load the ammunition properly within 15 seconds each with the cover assembly open and closed.

Ordnance. A belt with (100) rounds of .50 cal dummy rounds.

Reference. MCWP 3-15.1 and TM 02498A-10/1.

WPN-231	2.0	B	(1) M2.50 Cal	N/D	L/S

Goal. Perform immediate and remedial action for the M2 .50 cal HMG.

Requirement. Per the reference, perform immediate and remedial action while wearing a combat load (body armor, kevlar, and associated proper protective equipment). This event shall be conducted in daylight first to ensure ORM is applied. Once proficiency is demonstrated, this event will be conducted in hours of darkness or reduced visibility.

(1) Perform immediate action on the M2.
(2) Perform immediate action on the runaway M2.
(3) Perform remedial action on the M2 heavy machinegun.
(4) Perform remedial action on a stuck cartridge in the M2.
(5) Perform remedial action on a ruptured cartridge in the M2.
(6) Perform remedial action for sluggish operation of the M2.

Performance Standard. Perform all immediate and remedial actions that return the weapon back to operation. Once the event is completed in hours of darkness, then it can be logged as complete.

(5) Manipulation (tripod mount, tripod controlled).

Performance Standard. Accurately state the M240B characteristics listed above.

Reference. MCWP 3-15.1.

WPN-235	1.0	B	(1) M240B	L

Goal. Disassemble and assemble the M240B MMG.

Requirement. Per the reference, disassemble the M240B into the five major groups and then re-assemble within a time limit of five minutes.

Performance Standard. M240B is disassembled and re-assembled in a time limit of five minutes.

Reference. MCWP 3-15.1 and TM 08670A-10/1B.

WPN-236	2.0	B	(1) M240B	L

Goal. Perform operator maintenance on the M240B MMG.

Requirement. Per the reference, given an SL-3 complete M240B, authorized cleaning gear and lubricant, perform operator maintenance for a M240B.

Performance Standard. Per the reference, perform operator maintenance on M240B.

Prerequisite. WPN-235.

Reference. MCRP 3-15.1 and TM 08670A-10/1B.

WPN-237	1.0	B	(1) A-MANPAD, (1) M240B	N/D	L

Goal. Assemble and mount the M240B MMG.

Requirement. Per the reference, given an SL-3 complete M240B and a tactical vehicle with an appropriate mount, mount the M240B in a time limit of ten minutes. This event shall be conducted in daylight first to ensure ORM is applied. Once proficiency is demonstrated, this event will be conducted in hours of darkness or reduced visibility.

Performance Standard. Mount the M240B in a time limit of 10 minutes. Once the event is completed in hours of darkness, then the event can be logged as complete.

Prerequisite. WPN-235.

Reference. MCWP 3-15.1, TM 11133A-OR/A, FM 21-305 and TM 08670A-10/1B.

(5) Perform remedial action for sluggish operation of a M240B.

Performance Standard. Without the aid of reference, perform all immediate and remedial actions that return the weapon back to operation. Once the event is completed in hours of darkness, then the event can be logged as complete.

Prerequisite. WPN-235, WPN-237 and WPN-238.

Reference. MCWP 3-15.1 and TM 08670A-10/1B.

Ordnance. (100) rounds of A159 Dummy 7.62mm Linked.

WPN-240	3.0	B, R	(1)AMANPADS, (1)M240B		L

Goal. Engage targets with the M240B MMG.

Requirement. During a live firing exercise, the Gunner, given a SL-3 complete M240B and (435) rounds of A-131 7.62mm ammunition, will engage targets utilizing Table 7 M240B Familiarization Fire and aerial targets.

Performance Standard. Utilizing proper operating procedures and firing techniques, the Gunner will engage ground and/or an aerial target.

Prerequisite. WPN-235, WPN-237, WPN-238 and WPN-239.

Reference. MCWP 3-15.1, TM 08670A-10/1B and TM 11133A-OR/A.

Ordnance. (435) rounds of A-131 7.62mm LINKED.

External Syllabus Support. Medium machine-gun range capable of supporting mounted and dismounted firing of 7.62mm at 1/5 scale aerial targets flying with varying profiles, and stationary ground targets that are setup at various ranges.

WPN-241	1.0	B	(1)AN/PSN-13,(1)M240B	N/D	L

Goal. Mount a limited visibility site on the M240B.

Requirement. Per the reference, mount the limited visibility site. This event shall be conducted in daylight first to ensure ORM is applied. Once proficiency is demonstrated, this event will be conducted in hours of darkness or reduced visibility.

Performance Standard. The limited visibility sight is properly mounted and functioning. Once the event is completed in hours of darkness, then the event can be logged as complete.

Reference. TM 10091A/10092A-10/1, TM 11-5855-213-10 and TM 08670A-10/1B.

WPN-246	2.0	B	(1)M2.50 Cal	L

Goal. Zero the M2 .50 cal HMG.

Performance Standard. Zero the M2 using the night vision sight IAW the reference. Once the event is completed in hours of darkness, then the event can be logged as complete.

Prerequisite. WPN-246.

Reference. U. S. Marine Corps, Weapons Drill Guide, MCWP 3-15.1, and TM 11-5855-214-10.

Ordnance. (12) rounds of A576 CTG CAL .50, BALL LINKED.

External Syllabus Support. Man-sized stationary silhouetted targets.

WPN-248	2.0	B	(1) M240B	L

Goal. Zero the M240B MMG.

Requirement. Given a tripod mounted M240B, ammunition, front sight adjustment tool and while at a 12.7 meter or field expedient firing range perform the following:

(1) Allow front sight post to remain at position in which it was delivered.
(2) Set rear sight elevation at 500 meters for 12.7 meter target range.
(3) Assume a tight, well-supported firing position.
(4) Obtain correct sight alignment and sight picture.
(5) Fire a three round burst to obtain a good shot group and set the weapon.
(6) Locate center of shot group/determine distance (up/down, left/right) between center of the shot group and impact point on target.
(7) Fire three more, well-aimed rounds to confirm adjustments.
(8) Repeat procedure until BZO is confirmed.

Notes

1. *Combination front sight adjustment tool is used to adjust elevation and windage. This tool unlocks front sight blade retaining strap and has a special slotted end piece to turn front sight blade for elevation changes. Additionally, a hex wrench is included on another section of the tool and is designed to turn socket head windage adjustment screws; however, it should not be used for this unless it fits socket heads of windage screws tightly.*
2. *Windage adjustment screws will break with slightest over torque. Be careful not to over tighten adjustment screws.*

Performance Standard. BZO the M240B per the steps above.

Reference. U. S. Marine Corps Weapons Drill Guide and MCWP 3-15.1.

Ordnance. (10) rounds of A-131 7.62MM LINKED.

External Syllabus Support. Man-sized stationary silhouetted targets.

Requirement. Given a fully-equipped AMANPADS loaded with (100) rounds of .50 cal and (100) rounds of 7.62mm ammunition and a tactical scenario that includes enemy air order of battle, ROE, air defense control measures, and appropriate aerial targets, conduct engagements with the M2 and M240B.

Performance Standard. The Gunner will demonstrate proper target selection and fire distribution techniques. The Gunner must demonstrate proper detection, ranging, and firing techniques.

Prerequisite. WPN-246, WPN-247, WPN-248, and WPN-249.

Reference. FM 44-18, FM 44-8, and MCWP 3-25.10*.

Ordnance
(100) rounds of A-576 ammunition, and
(100) rounds of A-131 ammunition.

External Syllabus Support. Heavy machine-gun range capable of supporting mounted and dismounted firing of 7.62mm and .50 cal at 1/5 scale aerial targets flying with varying profiles, and stationary ground targets that are setup at various ranges.

WPN-251 3.0 B,R E L

Goal. Engage a stationary target with a hand grenade

Requirement. Given a training site, training support equipment (and the various types of hand grenades), and references while wearing individual field equipment.

(1) State the various types of hand grenades:
    (a) Fragmentation.
    (b) White phosphorus.
    (c) Illumination.
    (d) Incendiary.
    (e) Riot control.
    (f) Smoke.
(2) Demonstrate how to employ a practice hand grenade.

Performance Standard. Explain the characteristics and nomenclature of various types of hand grenades. Explain the purpose and function of the various types of hand grenades. Demonstrate the proper employment of a M67 fragmentation grenade.

Reference. FM 23-30 and STP 21-1-SMCT.

Ordnance. (1) M67 Fragmentation Hand Grenade.

External Syllabus Support. A live fire grenade range that supports use of fragmentation grenades.

6. Gunnery (GUN)

a. Purpose. To instruct LAAD Gunners on the capabilities, limitation operations, and maintenance of the Stinger missile as well as to provide the

(a) Scenarios will include a minimum of 1 friendly and 1 hostile R/W aircraft. Aircraft speeds will not exceed 200 knots.
(b) Five scenarios presenting crossing profiles where R/W aircraft are at ranges between 1-8 kilometers with altitudes between 3-12 thousand feet.
- One scenario will include 2 hostile R/W aircraft together with one terrain masking for entire flight.
- One scenario will include R/W aircraft out of range to challenge Gunner's ability to properly range targets.
(c) Five incoming R/W aircraft scenarios will present incoming profiles. Aircraft will be at ranges between 2-7 kilometers at any altitude from below 15000 feet.
- One scenario will include two hostile R/W aircraft.
- One scenario will include R/W aircraft out of range to challenge Gunner's ability to properly range targets.

Performance Standard. Properly identify targets IAW established rules of engagement. Demonstrate proper detection, acquisition, ranging, super elevation, and firing techniques. Actions are to be evaluated using the MTS. Engage and hit five F/W and five R/W aircraft tracks. No engagements on aircraft out of range and no engagement of friendly aircraft.

Prerequisite. GUN-252.

Reference. MCRP 3-25.10* and FM 44-1A.

GUN-254 2.0 B (1) IMTS S

Goal. Engage aircraft employing infrared counter measures (IRCCM's) in different simulated environments.

Requirement. Range, identify, and engage aircraft in the IMTS. The scenarios will include:

(1) Ten F/W scenarios containing
(a) Scenarios will include a minimum of 1 friendly and 1 hostile aircraft. Aircraft speeds will vary between 200-450 knots.
(b) Five crossing scenarios where F/W aircraft range between 1-8 kilometers with altitudes between 3-12 thousand feet.
- One scenario will include 2 hostile aircraft together.
- One scenario will ensure aircraft are out of range.
(c) Five incoming scenarios where F/W aircraft range between 2-7 kilometers at any altitude below 15000 feet.
- One scenario will include 2 hostile aircraft together.
- One scenario will ensure aircraft are out of range.
(2) Ten R/W scenarios containing:
(a) Scenarios will consist of a minimum of 1 friendly and 1 hostile aircraft. Aircraft speed will not exceed 200 knots.
(b) Five crossing scenarios were R/W aircraft range between 1-8 kilometers with altitudes between 3-12 thousand feet.
- One scenario will include 2 hostile aircraft together with one terrain masking for the entire flight.
4. One scenario will include aircraft are out of range.

(5) Remove BCU within three minutes.

Prerequisite. GUN-252, GUN-253 and GUN-254.

Reference. MCRP 3-25.10* and FM 44-1A.

Ordnance
(1) of following Stinger missile types: PL-89, PL-90, or PL-93, and
(1) PN-15 or PN-16 Stinger grip-stocks (Basic/RMP).

External Syllabus Support. Appropriate aerial targets, RCMAT, and/or Remotely Piloted Target Systems (RPVTS) and firing range that is capable of supporting SHORAD missile systems.

GUN-257 1.0 B SMALL ARMS Air Defense S

Goal. Conduct Small Arms Air Defense Brief.

Requirement. Given a threat scenario, plan and brief the supported unit in the employment of small arms in an air defense role.

Performance Standard. Plan and brief the small arms air defense plan ensuring the following elements are included:

(1) Techniques of leading fixed wing aircraft.
(2) Techniques of leading rotary wing.
(3) Volume of fire and weapons mix.

Reference. FM 44-18 and FM 44-8.

7. Visual Identification (VID)

a. Purpose. To continue to develop and refine those intricate skills taught at the entry level school that are inherent to every LAAD Gunner. This skill is one of many skill sets that Gunners must master in order to identify threat aircraft or vehicles targeting friendly assets. LAAD gunner will be required to visually identify aircraft (based on like aircraft and/or current threat).

b. Crew Requirements. None.

c. Academic Training. Appropriate academic training and lectures for the Core Basic Training Stage as depicted in Appendix B. Academic training will be conducted prior to and concurrent with required events.

d. Refresher Training. Refresher training shall be conducted when LAAD Basic Gunners return to a LAAD unit after serving more than 36 months outside of a Basic Gunner billet in the operating forces. Upon return, the Gunner will complete "R" coded events for this stage of training.

e. Live and simulated training. 2 events, 30.0 hours.

VID-260 24.0 B, R L/S

Goal. Visually identification of aircraft.

of a Basic Gunner billet in the operating forces. Upon return, the Gunner will complete "R" coded events for this stage of training.

e. Live and simulated training. 4 events, 4.0 hours.

CTM 265 1.0 B S

Goal. Apply air defense control measures.

Requirement. Per the references and given a tactical scenario, or during a practical exercise, define and apply air defense control measures; must demonstrate knowledge of the following:

(1) Air Defense Warning Conditions (ADWC).
(2) States of Alert (SOA).
(3) Rules of Engagement (ROE).
(4) Weapons Control Status (WCS).
(5) Identification criteria.
(6) Self defense criteria.
(7) Fire control orders.
(8) Depict Ten Airspace Control Measures (ACM) on a Map.

Performance Standard. Without error answer and perform each of the events listed above. Depict all ten air defense control measures on a map.

Reference. MCWP 3-25.10 and MCWP 3-25.11.

CTM-266 1.0 B, R S

Goal. Define the use of Rules of Engagement (ROE)

Requirement. Per the reference, define the use of Rules of Engagement, identification criteria, track classification, weapons control statuses and fire commands as they relate to the engagement of air threats.

Performance Standard. Without error, define ROE, identification criteria, track classification, weapons control statuses and fire commands.

Prerequisite. CTM-265 and attend Lecture A-13 ROE Overview (Local MACG).

Reference. MCWP 3-22, MCWP 3-25.10*, MCRP 3-25.10*, and FM 27-10.

CTM-267 1.0 B S

Goal. Identify Manual Cross-Tell Target Information.

Requirement. Per the reference, provided with a map, overlay with the Cartesian Coordinate Reference Point system (CCRP) on it:

(1) Explain the purpose for manual cross-tell.
(2) Within four minutes correctly plot five points on the CCRP.

(1) Identify command and key billets within a convoy.
(2) Identify communication nets within a convoy.
(3) Identify the vehicle configuration of a convoy.

Performance Standard. Without error, identify the basic convoy organization and structure.

Prerequisite. Attend lecture A-01.

Reference. MCRP 44-11F and MCRP 44-11H.

MAN-273 1.0 B, R (1)A-MANPAD, (1)CREW SERVED WPN, (1)THT L

Goal. Conduct immediate action and quick reaction drills with the Advanced MANPAD.

Requirement. Given a tactical scenario the Gunner will conduct the following immediate action and quick reaction drills:

(1) Conduct immediate to defend against an air attack using primary and secondary weapon systems.
(2) Conduct immediate action drill to defend against ambushes:
    (a) Unblocked ambush.
    (b) Blocked ambush.
(3) Conduct immediate action drill to defend against sniper attacks.

Performance Standard. The Gunner is provided fully-equipped AMANPADS. The Gunner takes immediate action and performs the proper procedures for an air attack, ambushes (un-blocked & blocked), and sniper attacks.

Prerequisite. GUN-246 and GUN-251.

Reference. MCRP 4-11.3F, MCRP 4-11.3H and MCRP 3-25.10*.

MAN-274 2.0 B, R L

Goal. Conduct Fire Team formations.

Requirement. Per the reference, maneuver a fire team through each formation listed below:

(1) Tactical column.
(2) Wedge.
(3) VEE.
(4) Skirmishers left/right.
(5) Echelon left/right.

Note: This event shall be conducted in daylight first to ensure ORM is applied. Once proficiency is demonstrated, this event will be conducted in hours of darkness or reduced visibility.

Performance Standard. Without error answer and perform each of the events listed above. Once the event is completed in hours of darkness, then the event can be logged as complete.

Assistance from a crew member and a fully-equipped AMANPADS are available.

Performance Standard. Emplace and prepare the AMANPADS for action per procedures outlined in TM 9-1425-433-10, paragraphs 3-29f and 3-32. Accomplish this task in 8 minutes.

Reference. MCRP 3-25.10*.

CMT-282 2.0 B, R (1) A-MANPAD N/D L

Goal. Conduct a tactical team mount-out.

Requirement. Mount-out will be conducted using an A-MANPAD. Load contents or configuration may be dictated by appropriate unit level SOP. Mount-out to be conducted during hours of daylight and darkness. If no SOP exists the load out will consist of no less than the equipment listed below:

(1) SL-3 complete Advanced MANPAD vehicle:
    (a) RTU.
    (b) Military GPS.
    (c) VRC-91 / SL-3 complete.
    (d) M240 or M2 .50 cal.
(2) Three DOS food.
(3) Fuel x 2.
(4) Water x 2.
(5) Ammunition cans.
(6) T/O weapons.
(7) Personal equipment.
(8) Batteries.
(9) NVD.
(10) Camouflage netting.
(11) Camouflage netting poles.

Performance Standard. Vehicle will be loaded and secured IAW unit SOP or, if no SOP exists, per the list above. Vehicle must be loaded within 30 minutes. Once the event is completed in hours of darkness, then the event can be logged as complete.

Reference. MCWP 3-25.10*.

CMT-283 1.0 B, R L

Goal. Prepare a range card.

Requirement. Per the reference, given a mission and proper support equipment, construct a range card that will accomplish minimum requirements of both primary and secondary missions. At a minimum will consist of the following:

(1) Team, section, and platoon information.
(2) Position identification.
(3) Date.
(4) Who the range card was prepared by.
(5) Corresponding weapon system with ranges for air and ground.
(6) Range scale depicted.

(a) The mission, routes, and fire support plan.
(b) Their assignments and when they are to be conducted.
(c) Challenges and passwords, call signs, frequencies to be use during the patrol, report times and other details.

(7) Re-inspect, as necessary.

Performance Standard. The patrol shall be inspected until every member is properly equipped and prepared for the patrol.

Reference. MCWP 3-11.2 and MCWP 3-11.3.

CMT-287 3.0 B, R D/N L/S

Goal. Conduct a patrol rehearsal.

Requirement. After receiving the plan and given a fully equipped LAAD unit with weapons and vehicles, conduct patrol rehearsals to include:

(1) Selection of time and location for the rehearsal.
(2) Identify actions required for each phase in the plan.
(3) Conduct a walk through rehearsal of all phases using only the signals and commands to be used in actual patrol.
(4) Continue rehearsing until patrol is thoroughly familiar with the plan.
(5) Make final adjustments to the plan and patrol organization based on what was learned and rehearsed.
(6) Coordinate location and time for patrol to test fire all weapons.
(7) This event shall be conducted in daylight first to ensure ORM is applied. Once proficiency is demonstrated, this event will be conducted in hours of darkness or reduced visibility.

Performance Standard. Patrols shall be rehearsed until every member of the patrol is thoroughly familiar with the plan. All essential elements of the plan shall be clearly understood and planned for IAW the references. Once the event is completed in hours of darkness, then it can be logged as complete.

(1) Location should be similar to where the patrol will operate.
(2) If time is limited, rehearse only the most critical phases.

Reference. MCWP 3-11.2 and MCWP 3-11.3.

CMT-288 4.0 B, R N/D L/S

Goal. Conduct patrol immediate action drills.

Requirement. Given a fully equipped LAAD unit with weapons and vehicles, conduct patrol immediate action (IA) drills.

(1) Select time and location to conduct immediate action drills.
(2) Conduct an immediate halt drill.
(3) Conduct an air observation and/or attack drill.
(4) Conduct a hasty ambush drill.
(5) Conduct an immediate assault drill.
(6) Conduct a near ambush drill.

c. Core Skills Advance Stages

(1) Navigation (NAV)
(2) Communication (COM)
(3) Gunnery (GUN)
(4) Visual Identification (VID)
(5) Control Measures (CTM)
(6) Crew Management (CMT)
(7) Battle Management (BMT)
(8) Security (SEC)

2. Navigation (NAV)

a. Purpose. To provide the Section Leader with the advanced skills necessary to maneuver effectively while performing duties in a tactical environment. Events in this stage will be evaluated by WTI/LETI to ensure the standard is met.

b. Crew Requirements. None.

c. Academic Training. Appropriate academic training and lectures for the Core Basic Training Stage as depicted in Appendix B. Academic training will be conducted prior to and concurrent with required events.

d. Refresher Training. Refresher training shall be conducted when LAAD Basic Gunners return to a LAAD unit after serving more than 36 months outside of a Basic Gunner billet in the operating forces. Upon return, the Gunner will complete "R" coded events for this stage of training.

e. Live and simulated training. 3 events, 10.0 hours.

NAV-300 6.0 B, R, E (1)AMANPAD, (1)MILITARY GPS N/D L

Goal. Navigate within a vehicle.

Requirement. With a tactical vehicle, a map, 5 grid coordinates and a military GPS system, navigate to each of the five coordinates during both daylight hours and hours of darkness.

Performance Standard. In order to complete this event the Gunner must successfully navigate five out of five coordinates during daylight hours and hours of darkness.

Prerequisite. NAV-201, NAV-203 and NAV-205.

Reference. FM 3-25.26, TM 09880C-OR and TM 11-5825-291-10-2.

External Syllabus Support. Appropriate driving range for a vehicle navigation course.

NAV-301 2.0 B L

Goal. Construct operational graphics.

Requirement. Per the reference construct the following friendly and enemy graphics.

Requirement. Per the reference operate the cryptographic DTD.

(1) Operate.
(2) Store a key.
(3) Transfer a key.
(4) Delete a key.
(5) Zeroize.

Performance Standard. Operate the DTD conducting all steps noted above IAW the reference.

Prerequisite. Attend lecture A-19.

Reference. TM 09766A-10, TM 11-5810-394-20&P, and Allied Signal Users Manual ON477430 Rev E.

COM-307 1.0 B, R, E (1)AN/CYZ-0(V)3 (2)SINCGARS, (1)GPS L

Goal. Setup the SINCGARS for covered communications.

Requirement. Given a AN/CYZ-10(V)3 with a fill cable and a load set, a net ID, a single channel frequency, military GPS with correct cable(s), and two SINCGARS radio's, fill the radios for covered communications and frequency hopping.

Performance Standard. Event completed when communication is established with a distant station over secure single channel and frequency hopping.

Prerequisite. COM-217, COM-218, COM-306, and attend lectures A-14 and A-19.

Reference. TM 11-5820-890-10-6 and Allied Signal Users Manual ON477430 Rev E.

COM-308 4.0 B (1) PRC-150 L

Goal. State the characteristics of the PRC-150 HF radio.

Requirement. Per the reference, identify and describe the characteristics of the PRC-150 HF radio set.

Performance Standard. Without error answer and perform each of the events listed above.

Reference. TM 10822A-10/1.

COM-310 1.0 B, R CMS MATERIAL L

Goal. Handle CMS keying materials/communications aids.

Requirement. Per the references, receive, store, transport, destroy, safeguard and complete required destruction records.

Performance Standard. Receive, store, transport, safeguard, destroy, and complete required destruction records.

COM-314 2.0 B (1) AS-2259, (2) PRC-150 L

Goal. Employ the AS-2259 antenna.

Requirement. Per the reference, setup and use the AS-2259 antenna for communications.

Performance Standard. With the assistance of a radio operator setup the AS-2259 and communicate with another station within a 15 minute time limit.

Prerequisite. COM-217, COM-219, COM-306, COM-308 and COM-313.

Reference. TM-07508A-14.

COM-315 1.0 B L

Goal. Determine the length of a field expedient antenna.

Requirement. Per the references, given three frequencies, determine the lengths of the antennas by using the wavelength formulas listed below.

Wavelength	# Divided by the frequency in MHZ
Quarter Wave	234
Half Wave	468
Full Wave	936

Performance Standard. State the antenna lengths for the three frequencies provided.

Reference. MCRP 3-40.3B.

COM-316 3.0 B (2) PRC-150 L

Goal. Construct a High Frequency (HF) field expedient antenna.

Requirement. Per the references, given one frequency, construct a field expedient antenna for one wavelength, then communicate with another station. The following equipment will be provided:

(1) Camouflage netting support poles (or equivalent).
(2) WD-1.
(3) Duct tape.
(4) Electrical tape.
(5) Plastic spoons.
(6) HF frequencies x 3 (Lo / Mid / Hi).
(7) 550m cord.
(8) Cobra Head.
(9) Stakes.

Performance Standard. This event is complete when the antenna is correctly constructed and communications with another station is achieved using the antenna.

Reference. MCRP 3-25.10A, TM 10269A-10/1-1, TM 098480A-12 (pg.1), TM 02626C-14 (pg.5), RTU Lesson Guide.

External Syllabus Support. MACCS, Joint, or Coalition sensor.

COM-326 1.0 B,R E (1) BFT L

Goal. Operate the Blue Force Tracker System.

Requirement. In an academic or field environment, properly initialize and operate the BFT system by performing the following:

(1) Clearing Logs and Cues
(2) Verify equipment operational status/ability to send and receive SA and C2 messages.
(3) Establish/verify message address groups.
(4) Verify correct map data load Compressed ARC Digitized Raster Graphics(CADRG), IMAGERY, and Digital Terrain Elevation Data (DTED).
(5) Verify Mission Data Load (Overlays/TIRs).
(6) Establish message folders/filing system.
(7) Build and save Position Reports for subordinate analog units that must be reported digitally by updating and resending as required.

Performance Standard. The Gunner will correctly initialize, operate, and maintain communication with another station that is utilizing a Blue Force Tracker (BFT).

Reference. Blue Force Trackers Handbook dtd 12/05/03 ver 3.5.5.1.

Prerequisite. Attend the MAGTF Integrated Systems Training Center (MISTIC) Blue Force Tracker class or receive equivalent instruction by an individual trained to provide the instruction.

External Syllabus Support. MISTIC BFT Course instructor personnel.

COM-394 1.5 B, R L

Goal. Call and adjust supporting arms

Requirement. Given a tactical scenario on a map, sand table, or a simulated combat environment and an identified target, conduct the following:

(1) Determine best type of munitions to obtain desired effect on a target.
(2) Develop a call for fire to engage the target.
(3) Identify the most appropriate CAS brief.

Performance Standard. To achieve effects on target within the casualty radius with 5 adjustments or less, the Gunner will conduct the following:

Performance Standard. The Gunner will direct the Assistant Gunner by using proper fire commands and engagement orders to engage five jet aircraft, five non-jet propeller driven aircraft, and five helicopters. Any engagements of friendly aircraft will result in a failure of the event. This event can be completed in conjunction with event GUN-253.

Prerequisite. GUN-252 and GUN-253.

Reference. MCWP 3-25.11 and FM 44-1A.

GUN-324 1.0 B, R E L

Goal. Fire the Stinger Launch Simulator (STLS).

Requirement. Given a tactical scenario that includes enemy and friendly AOB, ROE, Air Defense Control Measures, and appropriate target, conduct a MANPAD engagement with the STLS.

Performance Standard. STLS will be fired on an appropriate range while observing applicable safety constraints and considerations. Gunner must properly identify target in accordance with established rules of engagement. Gunner must demonstrate proper detection, acquisition, ranging, super elevation, and firing techniques. Actions are to be evaluated by the firing pit coach. This event can be completed in conjunction with GUN-254.

Prerequisite. GUN-254.

Reference. TM 9-6920-1429-12.

Ordnance. (1)VX99 STLS.

External Syllabus Support. Appropriate aerial targets, RCMAT, and/or Remotely Piloted Target Systems (RPVTS) and firing range capable of supporting SHORAD missile systems.

GUN-325 1.0 B L

Goal. Control machine gun fires.

Requirement. Given a mission and a LAAD AMANPADS Section, conduct the following.

(1) Issue five paragraph order.
(2) Ensure machinegun teams and weapons are positioned properly and cover their assigned sectors of responsibility.
(3) Maintain two way communications with each team and unit commander.
(4) Direct engagement of all enemy targets through fire commands and signals.
(5) Maintain constant awareness of ammunition supply.
(6) Terminate engagement.
(7) Redistribute ammunition as needed.
(8) Direct the displacement of the guns.

(4) Oversee cleaning of weapons.
(5) Inspect weapons.
(6) Ensure weapons are lubricated properly.
(7) Ensure a function check is conducted on all weapons.
(8) Report weapon malfunctions or discrepancies to unit Armorer.
(9) Oversee return of weapons to the armory.
(10) Enforce weapons safety rules.

Performance Standard. The Gunner will perform operator maintenance on the M240B and M2 machineguns per procedures outlined in the references within 30 minutes.

Reference. MCWP 3-15.1, TM 02498A-10/1 and TM 08670A-10/1A.

5. Visual Identification (VID)

a. Purpose. The purpose of Visual Identification is to provide the LAAD gunner with advanced skills that are inherent to every LAAD Gunner. This skill is one of many skill sets that Gunners must master in order to identify threat aircraft or vehicles targeting friendly assets. The LAAD gunner will be required to visually identify aircraft (based on like aircraft and/or current threat).

b. Crew Requirement. A LAAD crew will be required for higher level evaluated events as dictated by each event.

c. Academic Training. Appropriate academic training and lectures for the Core Basic Training Stage as depicted in Appendix B. Academic training will be conducted prior to and concurrent with required events.

d. Refresher Training. Refresher training shall be conducted when LAAD Basic Gunners return to a LAAD unit after serving more than 36 months outside of a Basic Gunner billet in the operating forces. Upon return, the Gunner will complete "R" coded events for this stage of training.

e. Live and simulated training. 2 events and 33.0 hours.

VID-327	24.0	B, R	L

Goal. Advanced visually identification of aircraft.

Requirement. Without the aid of reference, and given a visual presentation of at least 100 combat aircraft consisting of a combination of U.S. and foreign aircraft, the Gunner will correctly identify the aircraft provided. The Gunner will be given one, 5-second exposure, from the front, side or rear aspect of the aircraft with a 5 second interval between each aircraft being presented.

Performance Standard. The Gunner will successfully identify 80 of the 100 aircraft presented.

Note. All tests will be conducted using slides (Microsoft Power Point format), or approved programs; examples VACR CD's, VACR programs. Total length of the aircraft displayed will average between 18-24 inches in length or width.

Performance Standard. Accurately depict the CCRP on a 1:50,000 or a 1:250, 000 sized map.

Prerequisite. CTM-267.

Reference. MCRP 3-25.10*.

CTM-335 1.0 B, R S/L

Goal. Define and apply Rules of Engagement (ROE).

Requirement. Define ROE as listed below:

(1) ROE are the directives issued by competent military authority, that delineate the circumstances, and limitations under which United States forces will initiate and/or continue combat engagements with other forces encountered.
(2) As this relates to the ACE ROE, identify exact conditions under which aircraft and missiles batteries may engage a target.

Performance Standard. Properly apply ROE during an IMTS scenario or field exercise.

Prerequisite. CTM-332, attend lectures A-13.

Reference. MCWP 3-22.

CTM-336 1.0 B,R S/L

Goal. Issue a Warning Order.

Requirement. Upon receipt of a warning order, the patrol leader will issue the warning order and conduct the following:

(1) Assemble personnel.
(2) Receive the patrol Warning Order.
(3) Assign preparatory tasks delegated by the patrol leader.
(4) Supervise completion of preparatory tasks.
(5) Assemble personnel for the issue of the Patrol Order.
(6) Set time and location for personnel and equipment check prior to patrol leader's inspection and rehearsal.
(7) Inspect personnel for the prescribed uniform, weapons, ammunition, ordnance and equipment.
(8) Check personnel for unnecessary equipment or personal items.
(9) Assist personnel in acquiring the individual items, and equipment necessary to accomplish the mission.
(10) Ensure everyone understands the mission, patrol routes, fire support plan and individual responsibilities.
(11) Ensure everyone knows the challenges and passwords, call signs, frequencies, and other pertinent information.
(12) Assemble personnel for patrol leader's inspection.

Performance Standard. With the aid of notes, the LAAD Gunner will prepare and present a Warning Order which accurately disseminates the information received from the platoon, battery, or battalion commander.

(13) Announce time of next event.

Performance Standard. The LAAD Gunner will prepare and present a Warning Order that accurately disseminates the information received from the platoon, battery, or battalion commander.

Prerequisite. CTM-332.

Reference. MCWP 3-11.2 and MCWP 3-11.3.

CTM-341 3.0 B, R E S/L

Goal. Develop and Issue a Defensive Operations Order

Requirement. After receiving a higher-headquarters/level OPORD for a defensive mission and given a map develop the Defensive OPORD.

(1) Use the BAMCIS formula to prepare the Defensive OPORD.
(2) Gather all unit leaders involved and issue the completed Defensive OPORD.
(3) Orient personnel by using a terrain model, sketch, and/or map.
    (a) Identify the North direction.
    (b) Provide grid coordinates for the present location.
    (c) Identify grid coordinates of key terrain features.
    (d) Identify avenues of approach, dead space, and gaps in the defense.
    (e) Identify grid applicable coordinates of boundaries, coordinating points, contact points, primary positions, alternate positions and supplementary positions.
    (f) Identify any fire support coordination measures.
    (g) Provide weather conditions and their expected effects on the mission.
(4) Give the enemy and friendly situation.
    (a) When giving the enemy situation use the SALUTE and DRAW-D formulas.
    (b) Give mission of next higher friendly unit.
    (c) Give unit, location and mission of adjacent friendly units.
    (d) Give unit, location, and type of support of the friendly fire support available.
    (e) Give location of any friendly sentinel posts, listening posts or patrols.
    (f) Give effective time and place of any attachments or detachments.
(5) Give the mission statement as a clear and concise statement of the task that must be accomplished. This statement will come from paragraph 3 of the higher-level OPORD.
(6) Assign tasks to subordinates that support the scheme of maneuver in the execution paragraph.
    (a) Give the concept of operations as the scheme of maneuver
    (b) Assign the exact duties to each of the subordinates.
    (c) Give the coordinating instructions.
(7) Give administrative and logistical instructions to include:
    (a) Ammunition requirements to include missiles and rounds per crew-served weapon and individual.
    (b) Special ordnance requirements like pyrotechnics, smoke, grenades or mines.

(4) Tasks.
(5) Rules of Engagement.
(6) Logistics plan.
(7) Communication and Signal plan.

Performance Standard. With the aid of notes, the Gunner will accurately recognize and record the pertinent information and requirements of his mission.

Prerequisite. CMT-280.

Reference. MCO P1500.44* and MCRP 3-25-10*.

CMT-342 3.0 B, R L

Goal. Direct the employment of platoon machineguns.

Requirement. Given an operations order, tactical map with overlay, and the requirement to tactically employ platoon machineguns, conduct the following:

(1) Analyze the mission.
(2) Analyze the situation and terrain.
(3) Consider available time.
(4) Assess available troops and equipment.
(5) Consider characteristics of available machineguns.
(6) Determine appropriate techniques of fire.
(7) Determine machinegun employment method(s) best suited for the mission.
(8) Issue orders.
(9) Redirect as situation dictates.

Performance Standard. With the aid of the references, demonstrate the proper employment of platoon machineguns. The Gunner will direct LAAD teams target selection and fire distribution techniques.

Reference. MCWP 3-15.1.

CMT-343 2.0 B, R L

Goal. Program IFF the belt pack.

Requirement. Given a KIR-1C, DTD, Fill cable, AN/GSX-1, KOI-18, AKAT 3662, and 3 AN/PPX-3B belt packs; program them with four days of Mode IV.

Performance Standard. Utilizing proper procedures program the belt pack with four days of Mode IV.

Prerequisite. CMT-285.

Reference. CMS1, TM 07922A/B, and MCRP 3-25.10*.

8. Battle Management (BMT)

a. Purpose. To instruct the Gunner on planning and employment of LAAD units in both air defense and security roles. This stage focuses on integration and planning with other agencies of the MAGTF.

b. Crew Requirements. LAAD crew/personnel will be required for higher level evaluated events as dictated by each event.

c. Academic Training. Appropriate academic training and lectures for the Core Basic Training Stage as depicted in Appendix B. Academic training will be conducted prior to and concurrent with required events.

d. Refresher Training. Refresher training shall be conducted when LAAD Basic Gunners return to a LAAD unit after serving more than 36 months outside of a Basic Gunner billet in the operating forces. Upon return, the Gunner will complete "R" coded events for this stage of training.

e. Live and simulated training. 19 events and 108.5 hours.

BMT-347 3.0 B,R L

Goal. Apply employment guidelines and principles.

Requirement. Per the references and provided with one 1:50,000 map, and 5 employment scenarios, apply the appropriate guideline and principle in each scenario.

Performance Standard. Properly depict and explain the appropriate guidelines and principle for each scenario.

Prerequisite. CMT-344.

Reference. MCRP 3-25.10*.

BMT-348 2.0 B L

Goal. List the units and their agencies within a Marine Air Control Group (MACG).

Requirement. Per the reference, state the units within a MACG and the agencies they provide:

(1) Marine Air Control Squadron:
    (a) Tactical Air Operations Center.
    (b) Marine Air Traffic Control.
    (c) Early Warning and Control.
(2) Marine Air Support Squadron - Direct Air Support Center:
(3) Marine Wing Communications Squadron - Communications detachments.
(4) Fixed Wing Marine Unmanned Squadron (VMU) - UAS detachments
(5) Marine Tactical Air Control Squadron - Tactical Air Command Center (TACC).
(6) LAAD Battalion - LAAD batteries, platoons, sections.

Performance Standard. Without error, list all agencies each MACG unit provides.

Requirement. Per the reference, list and define the factors for establishing air defense priorities.

(1) Criticality.
(2) Vulnerability.
(3) Recuperability.
(4) Threat.

Performance Standard. Without error, list and define the determining factors for establishing air defense priorities.

Reference. MCWP 3-22.

BMT-352 6.0 B, R L/S

Goal. Plan and employ a LAAD section in a general support mission.

Requirement. Per the reference, given a scenario, plan and employ a section in a general support mission by addressing the following:

(1) IPB (responsiveness to the threat).
(2) Threat analysis.
(3) LAAD capabilities, limitations, and requirements.
(4) Command/support relationships.
(5) Air defense priorities.
(6) Command Post (CP) operations.
(7) Air defense control measures.
(8) ID Criteria.
(9) Rules of engagement.
(10) Surveillance plan.
(11) Integration with MACCS.
(12) Integration with host nation assets (as applicable).
(13) Integration with GCE.
(14) Communications plan.
(15) Data link architecture capabilities/limitations.
(16) Re-supply.
(17) Logistics planning.
(18) Helicopter borne operations (as applicable).
(19) Night operations.
(20) Amphibious operations (as applicable).

Performance Standard. With the aid of reference, address in detail each of the items listed above that applies to the scenario.

Prerequisite. NAV 301, NAV-302, CTM-335, CMT-340, CMT-344, BMT-347, BMT-348, BMT-349, BMT-350, BMT-351, and lectures A-03 and A-13.

Reference. FMFM 3-1, MCWP 3-25.10*, MCWP 3-25.11, MCRP 3-40.3C, ACP-125, and FM 24-18.

BMT-353 6.0 B, R L/S

Goal. Plan for and employ a LAAD section in a direct support mission.

Requirement. The Gunner will plan and employ the LAAD unit per the reference. The Gunner's plan will address the following as applicable:

(20) Special situation considerations (urban operations, jungle operations, cold weather operations, night operations).

Performance Standard. With the aid of reference, address in detail each of the items listed above that applies to the scenario.

Prerequisite. NAV 301, NAV-302, CTM-335, CMT-340, CMT-344, BMT-347, BMT-348, BMT-349, BMT-350, BMT-351, BMT 352, and lectures A-05 and A-13, and B-21.

Reference. MCWP 3-11.3, FMFM 3-1, MCWP 3-25.10*, MCWP 3-25.11, MCRP 3-40.3C, ACP-125, and FM 24-18.

BMT-356 9.0 B, R L/S

Goal. Plan and employ a LAAD section in a site security.

Requirement. Given a tactical scenario, plan and employ a LAAD section in a site security role; plan will address the following:

(1) IPB (enemy situation, terrorist threat, indirect fire threat, IED and Vehicle Borne IED threat, sniper threat, enemy intelligence and collections).
(2) LAAD force protection capabilities, limitations, and Requirements.
(3) Command/support relationships.
(4) Command and control/Base Defense Operations Center.
(5) Entry control points for military and civilians.
(6) Entry and exit friendly lines procedures.
(7) Vehicle and personnel search procedures.
(8) Sectors of fire.
(9) Positions of machine guns/dead space.
(10) Actions on enemy contact.
(11) Positive ID criteria.
(12) Rules of engagement.
(13) Intelligence Surveillance Reconnaissance plan/sensor plan.
(14) Engineer/obstacle plan.
(15) Fire Support Plan.
(16) Less than lethal plan/Riot control.
(17) Personnel requirements and accountability.
(18) Communications planning.
(19) Attachments (translator, military working dog teams, EOD, etc…).
(20) Badge procedures.
(21) Escort procedures for Third Country Nationals/visitors.
(22) CASEVAC procedures.
(23) Quick Reaction Force procedures.
(24) Logistics planning.
(25) Night operations.

Performance Standard. With the aid of reference, address in detail each of the items listed above as they apply to the scenario.

Prerequisite. NAV 301, NAV-302, CTM-335, CMT-340, CMT-344, BMT-347, BMT-348, BMT-349, BMT-350, BMT-351, BMT-352; and lectures A-13, A-12, and B-06.

Reference. MCWP 3-21.1, MCWP 3-17, MCRP 3-16C, MCRP 3-33.5, MCWP 3-34.1, MCWP 3-15.1, MCRP 3-41.1A, and JP 3-10.1.

(5) Accessibility.
(6) Integration requirements.

Prerequisite. COM-219, COM-220 and COM-313, and lectures A-14, A-18 and A-19.

Reference. TM 11-5820-890-10-6, TM 10822A-10/1, applicable documents for BFT, mIRC, and TAC chat, and unit SOP(s).

BMT-362 2.0 B L

Goal. Define the six functions of Marine aviation.

Requirement. Per the reference, define the six functions of Marine Aviation:

(1) Aerial Reconnaissance.
(2) Assault Support.
(3) Anti Air Warfare.
(4) Control of Aircraft and Missiles.
(5) Electronic Warfare.
(6) Offensive Air Support.

Performance Standard. Without error define, the six functions of Marine Aviation per the reference.

Prerequisite. Lectures A-03, A-04, A-05, A-06, A-07 and A-08.

Reference. MCWP 3-25.

BMT-363 1.5 B, R L

Goal. Identify all Marine Air Command and Control System (MACCS) agencies and their respective missions.

Requirement. Per the reference, define the missions for the MACCS agencies listed below:

(1) Tactical Air Command Center (TACC).
(2) Direct Air Support Center (DASC).
(3) Marine Air Traffic Control (MATC).
(4) Tactical Air Control Center (TAOC).
(5) Low Altitude Air Defense (LAAD).
(6) Marine Unmanned Aerial Squadron (VMU).
(7) Marine Wing Communications Squadron (MWCS) (supporting agency).

Performance Standard. Without the aid of reference and without error define the mission of each agency listed above.

Prerequisite. BMT-348, and lectures A-02, B-07, B-08, B-09, B-10, B-11, and B-13.

Reference. MCWP 3-22.

Performance Standard. Safely conduct the evacuation of personnel. Event is completed when casualties are evacuated per the evacuation order and IAW the references. Attend lecture A-05 Assault Support (MAWTS-1).

Reference. FM 8-10-6 and FMFM 6-4.

BMT-386 24.0 B, R, E L/S

Goal. Establish a Command Post.

Requirement. Given equipment and personnel required in unit SOP, establish a Battery or Battalion-size Command Post by conducting the following:

(1) Identify a command post location that will facilitate command, control, and communications (C3).
(2) Pick a position that is covered and concealed rear of the forward friendly units.
(3) Identify alternate locations in the event the command post must be displaced rapidly.
(4) Organize personnel, equipment, and vehicles to operate and provide security indefinitely on a round the clock basis.
(5) Organize/Operate the command post per prescribed procedures contained in the unit SOP.

Performance Standard. The Gunner will establish a command post per the unit SOP, considering at a minimum the following:

(1) Communications/command and control.
(2) Cover and concealment/passive air defense measures.
(3) Local security.
(4) Safety requirements.
(5) Accessibility.
(6) Integration requirements.

Prerequisite. CMT-342, BMT-352, BMT-353, BMT-356, BMT-360 and BMT-361.

Reference. FM 6-3 and MCWP 3-11.1.

BMT-388 24.0 B, R, E L/S

Goal. Perform Watch Chief duties in the Combat Operations Center (COC).

Requirement. Given an operational battalion COC scenario and provided the required status boards, maps, overlays, and a unit journal, perform the duties of a Watch Chief in a battery or battalion-size command post, to include:

(1) Receive turnover from off going Watch Chiefs.
(2) Supervise COC Watch Crews.
(3) Obtain situation updates from Watch Personnel.
(4) Obtain information from the appropriate subordinate and supporting units.
(5) Update status information.

Note: This event shall be conducted in daylight first to ensure ORM is applied. Once proficiency is demonstrated, this event will be conducted in hours of darkness or reduced visibility.

Performance Standard. Without error, define and demonstrate each squad formation. Once the event is completed in hours of darkness, then the event can be logged as complete.

Prerequisite. COM-216.

Reference. MCWP 3-11.2.

310. CORE PLUS TRAINING

1. General

a. This phase of training is reserved for integrated missions and/or events having unique mission tasks. Personnel that complete this phase are the most experienced within a unit capable of the most demanding combat tasks. They are expected to display the maturity and tactical/operational skill commensurate with this status on a daily basis. In some cases, higher echelon supervisory position training may be reflected in this phase.

b. Prerequisite. Completion of the Core Skill Advanced phase.

c. Core Skill Plus Stages

(1) Battle Management (BMT)
(2) Gunnery (GUN)

2. Battle Management (BMT)

a. Purpose. To instruct the Gunner on how to plan and execute advanced LAAD operations in a joint environment.

b. Crew Requirement. LAAD crew/personnel will be required for higher level evaluated events as dictated by each event.

c. Academic Training. Appropriate academic training and lectures for the Core Basic Training Stage as depicted in Appendix B. Academic training will be conducted prior to and concurrent with required events.

d. Refresher Training. Refresher training shall be conducted when LAAD Basic Gunners return to a LAAD unit after serving more than 36 months outside of a Basic Gunner billet in the operating forces. Upon return, the Gunner will complete "R" coded events for this stage of training.

e. Live and simulated training. 10 events, 101.0 hours.

BMT-400	2.0	B,R	(1) GCU, GPU, THT	L

Goal. Recharge the THT.

Requirement. In a practical application environment, recharge the THT by operating the GCU, or GPU per the procedures outlined in the reference.

(5) Advance Party/RSOP.
(6) Support equipment.
(7) Traffic ability.
(8) Establish priority for equipment emplacement.
(9) Echelon considerations.
(10) Identification of alternate sites.

Performance Standard. Perform this event with DASC personnel assistance in compliance with local training guides, SOP and governing directives.

Prerequisite. Read MCRP 3-25.5, and attend DASC lecture B-09 provided by DASC personnel.

Reference. MCRP 3-25.5 Direct Air Support Center Handbook.

External Syllabus Support. DASC personnel to demonstrate site selection and COMM emplacement.

BMT-404	8.0	B,R	(1) VMU Detachment	L/S

Goal. Become familiar with Marine Unmanned Aerial Vehicle (VMU) site operations.

Requirement. In a garrison or field environment, observe site configuration and operations of a VMU detachment.

Performance Standard. Stand an entire watch with a VMU detachment at an operational VMU site.

Prerequisite. Read MCWP 3-42.1 and attend VMU lecture B-21.

Reference. MCWP 3-42.1 Unmanned Aerial Vehicle Operations.

External Syllabus Support. (1) VMU crew to provide the lecture and conduct the tour.

BMT-405	8.0	B, R	(1) ATC	L/S

Goal. Become familiar with the operations of a Marine Air Traffic Control (MATC) Detachment or ATC facility.

Requirement. In garrison or field environment, observe site configuration and operations of a MATC detachment or ATC facility.

Performance Standard. Stand an entire watch in an operational MATC detachment or ATC facility.

Prerequisite. Read MCWP 3-25.8 and attend ATC lectures B-08 and B-10.

Reference. MCWP 3-25.8 Marine Air Traffic Control Detachment Handbook.

External Syllabus Support. (1) ATC detachment or facility crew to provide the ATC lectures and conduct the tour.

lectures A-03 and A-08.

Reference. MCWP 3-25.10 and MCRP 3-25.10A.

BMT-413 6.0 B, R L

Goal. Plan for and employ a LAAD unit in Convoy Security operations role.

Requirement. Given a tactical scenario during a Marine Aviation Planning Problem (MAPP) or Field evaluation, plan for and employ a LAAD (unit) in a force protection role. The Gunner will plan and employ his unit for Convoy Security Operations. The Gunner's plan will address the following:

(1) IPB (Responsive to the Threat - likely choke points, ambush points, etc…).
(2) Weather.
(3) Intel (Threat analysis, Friendly forces, IED threat, COA's).
(4) LAAD force protection capabilities, limitations, and requirements.
(5) Command/support relationships.
(6) Command and control of the convoy.
(7) Route.
(8) Speed/rate of march.
(9) Sectors of fire.
(10) Positions of gun trucks.
(11) Actions on enemy contact.
(12) Positive ID criteria.
(13) Rules of engagement.
(14) Intelligence Surveillance Reconnaissance Plan or Route Reconnaissance Plan.
(15) Air defense priorities.
(16) Air defense control measures.
(17) Air escort planning and coordination.
(18) Plan for control of Close Air Support.
(19) Integration with higher.
(20) Integration with supported unit.
(21) Integration with MACCS.
(22) Integration with GCE.
(23) Communications planning.
(24) Bump plan for personnel and vehicles.
(25) Recovery plan for vehicles.
(26) CASEVAC procedures.
(27) Quick Reaction Force procedures.
(28) Logistics planning.
(29) Night operations.
(30) Operational risk management.
(31) Surveillance plan.
(32) GBDL architecture capabilities/limitations.
(33) Missile re-supply.

Performance Standard. The Gunner will develop a plan that properly addresses the employment of a LAAD unit that has been assigned a convoy operations mission having addressed all items listed above.

Prerequisite. NAV-300, NAV-303, COM-313, GUN-325, CMT-335, CMT-337, CMT-342, BMT-352, BMT-353, BMT-355, BMT-356, BMT-407, and lectures A-01, B-06, B-21, and C-05.

(a) Five crossing scenarios that include aircraft ranges between 1-8 km and altitudes between 3-12 thousand feet.
- One of these (5) scenarios will include 2 hostile aircraft together.
- One of these (5) scenarios will be designed so aircraft are out of range.

(b) Five incoming scenarios that include aircraft ranges between 2-7 km at any altitude below 15000 feet.
- One of these (5) scenarios will include 2 hostile aircraft together.
- One of these (5) scenarios will be designed so aircraft are out of range.

(2) 10 Rotary Wing scenarios that include a minimum of (1) friendly and (1) hostile aircraft. Aircraft speeds will not exceed 200 knots.

(a) Five crossing scenarios that include aircraft ranges between 1-8 km with altitudes between 3-12 thousand feet.
- One of these (5) scenarios will include 2 hostile aircraft together with one of them terrain masking during the entire flight.
- One of these (5) scenarios will be designed so aircraft are out of range.

(b) Five incoming scenarios that include aircraft ranges between 2-7 km at any altitude below 15000 feet.
- One of these (5) scenarios will include 2 hostile aircraft together.
- One of these (5) scenarios will be designed so aircraft are out of range.

Performance Standard. The Gunner will successfully engage aircraft, demonstrating proper detection, acquisition, ranging, super elevation, and firing techniques.

Reference. MCWP 3-25.11 and FM 44-1A.

External Syllabus Support. (1) IMTS.

GUN-416 1.0 B, R (1) Stinger D L

Goal. Plan for the execution of a Stinger missile Live Fire Annual Service Practice exercise.

Requirement. **Per the reference, Assist in the planning and execution of a Live Fire Exercise in order to** engage aerial targets with the Stinger Missile weapon system.

Performance Standard. Successfully plan and supervise the execution of a Stinger Live Fire Annual Service Practice.

Prerequisite. GUN-252, GUN-253, GUN-254, and lectures B-01, B-02, and B-03.

Reference. MCRP 3-25.10* and FM 44-1A.

(a) Aviation T&R Program Manual.
(b) LAAD T&R Manual.
(c) Local/unit SOPs.
(2) Understand aviation T&R Program policy and requirements.
(3) Record keeping:
(a) Review training documentation requirements.
(b) Properly record/log incomplete/completed events.
(c) Properly file required documentation in the IPR.
(4) Fully understand all LAAD system components and their functions.

Performance Standard. Pass a verbal exam with 80% accuracy.

IUT-502 2.0 B L

Goal. Conduct a period of instruction on a LAAD training event.

Requirement. Using operational LAAD systems and classroom facilities, demonstrate the ability to:

(1) Conduct a formal period of instruction on a LAAD training event in this syllabus. *The Gunner must be proficient and current in the event being instructed.*
(2) Evaluate student performance.
(3) Correct student deficiencies in a timely manner.
(4) Properly debrief students on their performance and provide corrective action.
(5) Complete an IPR for the each student trained.

Performance Standard. During the period of instruction demonstrate the ability to instruct, evaluate and debrief students.

Prerequisite. IUT-500.

IUT-503 4.0 B L

Goal. Assess student IPRs and develop a training plan.

Requirement

(1) Review student training history.
(2) Develop and document a training plan.
(3) Conduct a monthly Student Training Review.
(4) Ensure continuous, objective assessment of the student's progress during training.
(5) Provide recommendations on student readiness for qualification or designation.
(6) Identify areas requiring improved performance.
(7) Provide information during the training review process, as requested.
(8) Make decisions on skill enhancement training after receiving input from other instructors and the student.

Performance Standard. Demonstrate the ability to review, plan for and guide the student's training program in its entirety.

Prerequisite. IUT-500 and IUT-501.

billet. Completion of the 200 phase events listed in the Individual CSP Attain Table for TLDR.

CERT-601

Goal. Tracking code for a LAAD Section Leader certification.

Requirement. The Battalion Commander will certify the LAAD Section leader in writing and ensure the letter is filed in the IPR after this code is logged.

Prerequisite. CERT-600. Completion of the 300 phase events listed in the Individual CSP Attain Table for SLDR.

CERT-602

Goal. Tracking code for a LAAD Platoon Sergeant certification.

Requirement. The Battalion Commander will certify the LAAD GUNR as a Platoon Sergeant in writing and ensure the letter is filed in the IPR after this code is logged.

Prerequisite. CERT-601. Completion of the 300 phase events listed in the Individual CSP Attain Table for PLT SGT.

CERT-603

Goal. Tracking code for a LAAD Operations Chief certification.

Requirement. The Battalion Commander will certify the LAAD Battery/Battalion Ops Chief in writing and ensure the letter is filed in the IPR after this code is logged.

Prerequisite. CERT-602. Completion of the 300 phase events listed in the Individual CSP Attain Table for OPS CHF.

3. Qualifications. None.

4. Designations

a. Purpose. To track the designation of combat leaders, Gunner "positions," and LAAD instructors. All syllabus training requirements for a specific designation must be complete prior to being designated. Training management personnel shall log final designation codes once designated by the commanding officer or direct representative.

b. Administrative Notes

(1) A commanding officer may grant a designation to a LAAD Gunner when the Gunner completes all training requirements for that designation. The designation is effective when the squadron WTI reviews the IPR and staffs the designation letter, the commander signs the letter, the appropriate designation code is logged, and all administration is complete.

(2) In order for a designation to remain current, the Gunner shall maintain proficiency in all core skills required for that designation to remain current.

Goal. Tracking Code for WTI designation.

Requirement. Be certified by MAWTS-1 as a WTI. Upon graduation from the Weapons and Tactics Instructor Course, MCAS Yuma, AZ; graduates shall be designated a 7277 (Command, Control, and Communications WTI).

Prerequisite. Per MAWTS-1 WTI course syllabus requirements.

BGNR	113	LAND NAV		16.50			*	B				L			1.5		OPS-210
BGNR	115	IDENTIFY MANUAL CROSS-TELL		1.75			*	B				L		BGNR-113	1.0		
BGNR	116	ESTABLISH GBDL		8.00			*	B				L		BGNR-108, BGNR-109, BGNR-110, BGNR-111, BGNR-112, BGNR-113, BGNR-114, BGNR-115	2.0		
BGNR	117	OPERATE A GPS UNIT		14.50			*	B				L	D	BGNR-113	2.0		SYS-111
BGNR	118	EMERGENGY DESTRUCTION PROCEDURES		1.00			*	B				L		BGNR-102, BGNR-109, BGNR-111, BGNR-116, BGNR-117	1.0		SYS-106
BGNR	120	M240B		2.00			*	B				L			1.0		
BGNR	121	M240B		2.00			*	B				L		BGNR-120	1.0		
BGNR	122	M240B		4.00			*	B				L		BGNR-121	1.0		
BGNR	123	M240B		4.00			*	B				L		BGNR-122	1.0		
BGNR	124	M240B		5.00			*	B				L		BGNR-123	1.0		
BGNR	126	M240B		4.00			*	B				L		BGNR-125	1.0		
BGNR	127	M240B		5.00			*	B				L		BGNR-126	1.0		
BGNR	128	M240B				16.00	*	B				S		BGNR-127	1.5		
BGNR	129	M2.50 CAL HMG		2.00			*	B				L			1.0		
BGNR	130	M2.50 CAL HMG		2.00			*	B				L		BGNR-129	1.0		
BGNR	131	M2.50 CAL HMG		4.00			*	B				L		BGNR-130	1.0		
BGNR	132	M2.50 CAL HMG		4.00			*	B				L		BGNR-131	1.0		
BGNR	134	M2.50 CAL HMG		5.00			*	B				L		BGNR-133	1.0		
BGNR	135	M2.50 CAL HMG		4.00			*	B				L		BGNR-134	1.0		
BGNR	136	M2.50 CAL HMG		5.00			*	B				L		BGNR-135	1.0		
BGNR	137	M2.50 CAL HMG				16.00	*	B				S		BGNR-135	1.0		
BGNR	140	ESTABLISH A TEAM		12.00			*	B				L		BGNR-100	2.0		OPS-303

BGNR	146	ENGAGE AIRCRAFT		1.00			*	B				L		BGNR-128, BGNR-129, BGNR-130, BGNR-131, BGNR-132, BGNR-133, BGNR-134, BGNR-135, BGNR-137, BGNR-143	1.0		
BGNR	147	M240B MMG				4.00	*	B				S		BGNR-120, BGNR-121, BGNR-122, BGNR-123, BGNR-124, BGNR-125, BGNR-126, BGNR-127	1.0		
BGNR	148	M2.50 CAL HMG		4.00			*	B				L		BGNR-120, BGNR-121, BGNR-122, BGNR-123, BGNR-124, BGNR-125, BGNR-126, BGNR-127	1.0		
BGNR BGNR	149 151	RANGE CARD MG POS IED		1.00			*	B				L		BGNR-127 BGNR-137	1.0		
BGNR	152	VID AIRCRAFT		44.00			*	B				L			3.0		OPS-101

COM	218	SINCGARS		1.0			12	B, R				L		COM-217	0.25		SYS-124
COM	219	SINCGARS		2.0			*	B				L/S		COM-217, COM-218	0.25		
COM	220	RTU-E		1.0			12	B				L		COM-218	0.25		OPS-223
			5	**7.0**	**0**	**0.0**									**1.25**		
WEAPONS (WPN)																	
WPN	224	EXECUTE FIRE COMMANDS		2.0			*	B				L/S			0.25		
WPN	225	M2 .50 CAL HMG		1.0			*	B				L			0.25		
WPN	226	M2 .50 CAL HMG		1.0			*	B				L			0.25		
WPN	227	M2 .50 CAL HMG		2.0			*	B				L		WPN-226	0.25		
WPN	228	M2 .50 CAL HMG		1.0			12	B				L		WPN-226	0.50	WPN226	
WPN	229	M2 .50 CAL HMG		1.0			12	B				L		WPN-226	0.25		
WPN	230	M2 .50 CAL HMG		1.0			12	B				L			0.25		
WPN	231	M2 .50 CAL HMG		2.0			12	B				L/S	N/D	WPN-226, WPN-228, WPN-229, WPN-230	0.50	WPN226, WPN228, WPN231, WPN231	
WPN	232	M2 .50 CAL HMG		3.0			12	B, R				L/S		WPN-226, WPN-228, WNP-229, WPN-230	0.25		
WPN	233	M2 .50 CAL HMG		1.0			*	B				L	N/D		0.25		
WPN	234	M240G MMG		1.0			*	B				L			0.25		
WPN	235	M240G MMG		1.0			*	B				L			0.25		
WPN	236	M240G MMG		2.0			12	B				L		WPN-235	0.25		
WPN	237	M240G MMG		1.0			12	B				L	N/D	WPN-235	0.50	WPN235	
WPN	238	M240G MMG		1.0			12	B	E			L	N/D	WPN-236	0.25		
WPN	239	M240G MMG		2.0			12	B				L/S	N/D	WPN-235, WPN-237, WPN-238	0.25		
WPN	240	M240G MMG		3.0			12	B, R				L		WPN-235, WPN-237, WPN-238 WPN-239	0.50	WPN235, WPN237, WPN238, WPN239	
WPN	241	M240G MMG		1.0			12	B				L	N/D		0.25		
WPN	246	M2 .50 CAL HMG		2.0			*	B				L			0.25		

			1	1.0	3	3.0									0.95		
MANEUVERS (MAN)																	
MAN	272	CONVOY ORGANIZATION				1.0	*	B				S		Lect A-01	0.25		
MAN	273	IMMEDIATE ACTION		1.0			*	B,R				L		GUN-246, GUN-251	0.25		
MAN	274	FIRE TEAM FORMATIONS		2.0			*	B,R				L			0.25		
			2	3.0	1	1.0									0.75		
CREW MANAGEMENT TRAINING (CMT)																	
CMT	280	OPERATION ORDER		2.0			12	B, R				L			0.25		
CMT	281	EMPLACE THE ADMANPADS		1.0			*	B, R				L			0.25		
CMT	282	TACTICAL TEAM MOUNT-OUT		2.0			*	B, R				L	N/D		0.25		
CMT	283	PREPARE A RANGE CARD		1.0			*	B, R				L			0.40		OPS-231
CMT	284	EMERGENCY DESTRUCTION				1.5	*	B, R				S			0.40		SYS-226
CMT	286	CONDUCT PATROL INSPECTIONS		2.0			*	B, R				L/S			0.25		
CMT	287	CONDUCT PATROL REHEARSAL		3.0			12	B, R				L/S	N/D		0.25		
CMT	288	IMMEDIATE ACTION		4.0			12	B, R				L/S	N/D		0.25		
CMT	289	PREPARE PATROL ROUTE		2.0			12	B, R				L/S			0.25		
			8	17.0	1	1.5									2.05		
CORE SKILL BASIC TOTALS																	
			48	114	10	10									15.00		
CORE SKILL ADVANCED																	
NAVIGATION (NAV)																	
NAV	300	NAVIGATION		6.0			12	B, R	E			L	N/D	NAV-201, NAV-203, NAV-205	0.3		
NAV	301	NAVIGATION		2.0			*	B				L		NAV-202	0.3		
NAV	303	NAVIGATION		2.0			12	B,R				L		NAV-202, NAV-302, CMT-280	0.3		
			3	10.0	0	0.0									0.9		
COMMUNICATIONS (COM)																	
COM	306	DATA TRANSFER DEVICE		5.0			*	B, R				L		Lect A-19	0.3		

			15	**36.0**	**0**	**0.0**								**4.5**		
GUNNERY (GUN)																
GUN	323	DIRECT STINGER ENGAGEMENTS		8.0			12	B,R				L	D/N	GUN-252, GUN-253	0.5	
GUN	324	STINGER LAUNCH SIMULATOR (STLS)		1.0			36	B,R	E			L		GUN-254	0.3	
GUN	325	CONTROL MACHINE GUN FIRES		1.0			*	B				L		GUN-224, GUN-234, GUN-240	0.3	
GUN	373	LIVE STINGER ENGAGEMENT					36	B, R	E					GUN-252, GUN-253, GUN-254	0.3	
GUN	396	MACHINE GUN MAINTENANCE		1.0			*	B				L			0.3	
			4	**11.0**	**0**	**0.0**								**1.7**		
VISUAL IDENTIFICATION (VID)																
VID	327	VISUALLY IDENTIFY AIRCRAFT		24.0			12	B, R				L		VID-260, Lect B-01, B-02, B-03	0.3	
VID	329	BRIEF AIRCRAFT CAP'S & LIM'S		9.0			*	B,R				L		VID-327	0.3	
			2	**33.0**	**0**	**0.0**								**0.6**		
CONTROL MEASURES (CTM)																
CTM	333	CATRESIAN COORDINATE REFERENCE POINT (CCRP)		1.0			*	B				L		CTM-267	0.3	
CTM	335	RULES OF ENGAGEMENT (ROE)				1.0	18	B, R				S/L		CTM-332, Lect A-13	0.3	
CTM	336	ISSUE WARNING ORDER				1.0	*	B,R				S/L		CTM-333, CTM-335, Lect A-13	0.3	
CTM	337	ISSUE OPERATIONS ORDER				1.0	*	B, R				S/L		CTM-336	0.3	
CTM	339	ISSUE/PREPARE A UNIT ORDER				1.0	*	B, R				S/L		CTM-332	0.3	

BMT	352	LAAD EMPLOYMENT		6.0			12	B,R				L/S		NAV 301, NAV-302, CTM-335, CMT-344 CMT-340, BMT-347, BMT-348, BMT-349, BMT-350, BMT-351, Lect A-03, A-13	0.3		
BMT	353	LAAD EMPLOYMENT		6.0			12	B,R				L/S		NAV 301, NAV-302, CTM-335, CMT-344, CMT-340, BMT-347, BMT-348, BMT-349, BMT-350, BMT-351, BMT 352, Lect A-03, A-13	1.0		
BMT	355	LAAD EMPLOYMENT		12.0			12	B,R				L		NAV 301, NAV-302, CTM-335, CMT-344, CMT-340, BMT-347, BMT-348, BMT-349, BMT-350, BMT-351, BMT 352, Lect A-05, A-13, B-21	2.0		

BMT	388	COMMAND OPERATIONS CENTER		24.0			*	B, R	E			L/S		CMT-342, BMT-352, BMT-353, BMT-356, BMT-360, BMT-361, BMT-386	1.0		
BMT	392	IMPLEMENT UNIT TRAINING PLAN		5.0			12	B, R				L/S		Lect A-10	0.5		
			18	107.5	1	1.0									9.0		
SECURITY (SEC)																	
SEC	367	EMPLOY A SQUAD		1.0			12	B,R				L	D/N	COM-216			
			1	1.0	0	0.0									0.0		
CORE SKILL ADVANCE TOTALS																	
			48	211	7	9									20		
CORE PLUS																	
BATTLE MANAGEMENT TRAINING (BMT)																	
BMT	400	RECHARGING UNIT		2.0			24	B,R				L			0.20		
BMT	401	TACTICAL AIR COMMAND CENTER		8.0			12	B,R				L/S		Read MCWP 3-25.4, Lect B-07	0.20		
BMT	402	TACTICAL AIR OPERATIONS CENTER		8.0			12	B,R				L/S		Read MCWP 3-25.7, Lect B-08	0.20		
BMT	403	DIRECT AIR SUPPORT CENTER		8.0			12	B,R				L/S		Read MCWP 3-25.5, Lect B-09	0.20		
BMT	404	UNMANNED AERIAL SYSTEM		8.0			12	B,R				L/S		Read MCWP 3-42.1, Lect B-21	0.20		
BMT	405	MARINE AIR TRAFFIC CONTROL		8.0			12	B,R				L/S		Read MCWP 3-25.8, Lect B-08, B-10	0.20		

IUT	502	CONDUCT PERIOD OF INSTRUCTION		2.0			*	B				L		IUT-500				
IUT	503	ASSESS STUDENT IPR AND TRANING PLAN		4.0			*	B				L		IUT-500, IUT-501				
			4	14.0	0	0.0												
CERTIFICATION, QUALIFICATION AND DESIGNATIONS																		
CERTIFICATION (CERT)																		
CERT	600	TEAM LEADER CERTIFICATION		0.0				B,R						12 mo in A-Gunners billet. 200-phase events listed in Attain Table for TLDR.				
CERT	601	SECTION LEADER CERTIFICATION		0.0				B,R						CERT-600. 300-phase events listed in Attain Table for SLDR.				
CERT	602	PLATOON SERGEANT CERTIFICATION		0.0				B,R						CERT-601. 300-phase events listed in Attain Table for PLT SGT.				
CERT	603	OPERATIONS CHIEF CERTIFICATION		0.0				B,R						CERT-602. 300 phase events listed in Attain Table for OPS CHF.				
			4	0.0	0	0.0												
DESIGNATION (DESG)																		
DESG	610	SECTION LEADER DESIGNATION		0.0				B,R						CERT-601				
DESG	611	PLATOON SERGEANT DESIGNATION		0.0				B,R						CERT-602				

314. SYLLABUS EVALUATION FORM. See appendix A.

315. SIMULATOR MISSION ESSENTIAL SUBSYSTEMS MATRIX

1. The Improved Moving Target Simulator (IMTS) is a Low Altitude Air Defense (LAAD) weapons training system that provides computer generated aircraft and computer generated back images in a 360-degree dome. Real-time weapon interface and student action monitoring are provided during scenario execution. This system provides the Stinger gunner the opportunity to maintain proficiency for successful operation of the Stinger Man Portable Air Defense System (MANPADS) by using proper techniques and skills to identify, acquire, track and launch Stinger missiles.

2. Failed Subsystem descriptions

a. Network Server Interface - This subsystem is the heart of the IMTS. When it fails, the entire simulator becomes NMC.

b. Audio Subsystem - This subsystem is an audio component that adds training realism to a scenario but does not impact training effectiveness. When this subsystem fails, it is NMC; however, its NMC status does not impact the IMTS ability to support any event.

c. Visual Subsystem - This subsystem has redundant capability based on its ability to provide 360 degree situational awareness. Tactics, Techniques and Procedures (TTP's) require a 90 degree sector of interest to increase gunner effectiveness. The image generator and image projector are independent of each other (i.e. image projector #5 does not necessarily project the image generated by image generator #5).

(1) Image Generator - Consists of 16 identical image generators that generate both aircraft and environmental displays. NMC occurs when 13 or more of the total 16 image generators fail. PMC occurs when 12 or less image generators fail and the 90 degree sector capability remains.

(2) Image Projector - Consists of 16 identical image projectors that project the image created in the image generator. NMC occurs when 13 or more of the total 16 image projectors fail. PMC occurs when 12 or less image projectors fail and the 90% sector capability remains.

d. Instrumented Weapon Round - The IMTS can support up to three instrumented missiles at one time. Typically scenarios consist of one MANPAD team (2 Marines).

(1) Instrumented Missile - IMTS can support up to three instrumented missiles. NMC occurs when 3 of the 3 instrumented missiles fail. PMC occurs when 2 of 3 instrumented missiles fails.

(2) Instrumented Grip-stock - IMTS can support up to three instrumented grip-stocks and are required to be used with the instrumented missile. NMC occurs when 3 of the 3 grip-stocks fail. PMC occurs when 2 of 3 grip-stocks fail.

317. RANGE REQUIREMENTS

Weapon	Range Requirements
Medium Machine Gun	Capable of supporting mounted and dismounted firing of 7.62mm and .50 cal at 1/5 scale aerial targets flying with varying profiles, and stationary ground targets that are setup at various ranges.
Heavy Machine Gun	Capable of supporting mounted and dismounted firing of an M2 .50 cal HMG at 1/5 scale aerial targets flying with varying profiles, and stationary ground targets that are setup at various ranges.
M67 Fragmentation Grenade	A live fire grenade range that supports use of fragmentation grenades.
Stinger Missile	Appropriate aerial targets, RCMAT, and/or Remotely Piloted Target Systems (RPVTS) and firing range that is capable of supporting SHORAD missile systems.

APPENDIX B

REQUIRED T&R LECTURES

Academic training shall be conducted for each phase/stage of training. Commanders are strongly encouraged to incorporate the lectures in this appendix into their training plans. Where indicated, standardized academic training materials exist and may be obtained from the activity listed as the sponsor.

Lecture Code	Lecture Title	Sponsor
	200 PHASE: CORE SKILL BASIC	
A-01*	MAGTF Organization	MCCES
A-02*	MACCS Organization	MCCES
	The Six Functions of Marine Aviation	
A-03*	Control of Aircraft & Missiles	MAWTS-1
A-04*	Offensive Air Support	MAWTS-1
A-05*	Assault Support	MAWTS-1
A-06*	Electronic Warfare	MAWTS-1
A-07*	Aerial Reconnaissance	MAWTS-1
A-08*	Anti-Air Warfare	MAWTS-1
A-09*	Air Tasking Order/Special Instructions	MCCES
A-10*	MACCS Training Management	Local MACG
A-11*	MACCS Reference Material	MCCES
A-12*	Local AOR Contingencies & OP PLANS	Local MACG
A-13*	ROE Overview	Local MACG
A-14*	MACCS Communications	MAWTS-1
A-15*	CTAPS Overview	MAWTS-1
A-16*	Data Link Symbology	USAADASCH, MARCORDET
A-17*	Manual Cross-tell Procedures	USAADASCH, MARCORDET
A-18*	Encryption & Authentication Procedures	MCCES
A-19*	COMSEC & Crypto Handling	MCCES

APPENDIX C

TRAINING REFERENCES

1. Training references shall be utilized to ensure safe and standardized training procedures, performance steps, grading criteria, and equipment operation:

CMS-1	Communications Security Material System Manual
CMS-21A	CMS Policy and Procedures for Navy Electronic Key Management System Tiers 2 and 3
FM 3-25.26	Map Reading and Land Navigation
FM 5-20	Camouflage
FM 5-25	Explosives and Demolition
FM 6-3	Marine Infantry Battalion
FM 23-30	Grenades and Pyrotechnic Signals
FM 23-65	Browning Machinegun, Caliber .50, HB M2
FM 24-18	Tactical Single-Channel Radio Communications Techniques
FM 24-19	Radio Operators Handbook
FM 34-130	Intelligence Preparation of the Battlefield
FM 44-1	US Army Air Defense Artillery Employment
FM 44-8	Combined Arms for Air Defense
FM 44-18	Army Air Defense Employment (Stinger)
FM 44-18-1	Stinger Team Operations, 31 Dec 1984
FM 44-46	MANPADS Platoon, Section, and Team Operations
FM 44-64	SHORAD Battalion and Battery Operations
FM 44-80	Visual Aircraft Recognition Manual
FM 44-100-2	Air Defense Artillery Reference Handbook
FM 100-65	TRADOC DCSINT Worldwide Equipment Guide
FMFM 2-7	Fire Support in MAGTF Operations
FMFM 1	War-fighting
FMFM 1-2	Marine Troop Leaders Guide
FMFM 5-4A	Close Air Support and Close-in Fire Support
FMFM 5-60	Control of Aircraft and Missiles
FMFM 6-4	Marine Rifle Company/Platoon
FMFM 6-8	Supporting Arms Observer, Spotter and Controller
FMFM 6-18	Techniques and Procedures for Fire Support Coordination
JPUB 3-56.1	Tactical Command and Control Planning Guidance and Procedures for Joint Operations (Procedures and Formats)
MCO 3500.27	Operational Risk Management (ORM)
MCO P4790.7	Marine Corps Integrated Maintenance Management System (MIMMS) Field Procedures Manual
MCRP 3-0A	Unit Training Management
MCRP 3-0B	How to Conduct Training
MCRP 3-25.10A	Antenna Handbook
MCWP 3-11.1	Marine Rifle Company/Platoon
MCWP 3-15.1	Machine Guns and Machine Gun Gunnery
MCWP 3-22	Anti-Air Warfare